DEPARTMENT OF THE NAVY
FLEET AREA CONTROL AND SURVEILLANCE FACILITY
VIRGINIA CAPES
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA 23460-5015

FACSFACVACAPES 3120.1H

FACSFAC VACAPES INSTRUCTION 3120.1H

Subj: MANUAL FOR THE UTILIZATION OF FLEET AREA CONTROL AND SURVEILLANCE FACILITY, VIRGINIA CAPES OPERATING AREAS (FACSFAC VACAPES OPERATIONS MANUAL)

Ref: (a) FACSFACVACAPESINST C8800.1 (series)
(b) CINCLANTFLTINST 3120.26 (series)
(c) COMNAVAIRLANTINST 5450.6 (series)
(d) COMNAVAIRLANTINST 3100.1 (series)
(e) COMNAVAIRLANTINST 8840.1 (series)

1. Purpose. To provide a single source, up-to-date information and procedures guide for the use of Fleet Area Control and Surveillance Facility, Virginia Capes (FACSFAC VACAPES) Operating Areas (OPAREAs), Special Use Airspace (SUA) and services.

2. Cancellation. FACSFACVACAPESINST 3120.1G.

3. Discussion. This manual is reissued in its entirety and contains numerous editorial and format changes throughout. Reference (a) supports Chapter IV and is distributed separately.

4. Authority. In accordance with references (b) through (d), FACSFAC VACAPES coordinates services and operations, makes area assignments, schedules land targets, ensures promulgation of firing notices, issues weekly target and OPAREA schedules, and prescribes necessary additional regulations governing matters within its area of responsibility.

5. Action. All users of the FACSFAC VACAPES OPAREAs shall observe the procedures and restrictions set forth in this instruction.

6. Review Responsibility. The Operations Officer is responsible for the periodic review and update of this instruction.

J. B. CONNELLY

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RECORD OF CHANGES

CHANGE NUMBER	DATE OF CHANGE	DATE ENTERED	SIGNATURE OF PERSON ENTERING CHANGE

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CHAPTER I

GENERAL PROCEDURES

101 GENERAL INFORMATION. Fleet Area Control and Surveillance Facility (FACSFAC VACAPES) is located in Building 3030 on Oceana Boulevard north of the main gate of NAS Oceana.

Mailing Address: (SNDL 26 JJ 1)

Commanding Officer
Fleet Area Control and Surveillance Facility,
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Naval Air Station Oceana, Bldg 3030
Virginia Beach, Virginia 23460-5105

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Message Address: FACSFAC VACAPES OCEANA VA//XX//

Office codes:

CO	00
XO	01
CMC	02
ADMIN	1
OPS	3
ATC	31
OI	32
SCHEDULES	33
MAINTENANCE	4
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Radio Call Sign: GIANTKILLER

101.1 FACSFAC VACAPES OPERATING AREAS. FACSFAC VACAPES has cognizance over the following areas:

a. Operating Areas (OPAREAs) (surface and subsurface).

(1) Narragansett Bay (NBOA): Areas 1 through 28.
(2) Atlantic City (ACOA): Areas 1 through 14.
(3) VACAPES (VCOA): Areas 1 through 50 and Danger Area (D-334.390).
(4) Cherry Point (CPOA): Areas 1 through 23.

b. Warning Areas (airspace). W-50, W-72, W-105, W-106, W-107, W-110, W-122, W-386 and W-387.

c. Restricted Areas

(1) R-5301 Albemarle Sound
(2) R-5302 Palmetto Point
(3) R-5313 Stumpy Point
(4) R-5314 Dare County
(5) R-6606 Dam Neck

d. Inland Flight Areas

(1) Military Operations Areas (MOAs)

(a) Pamlico A/B

(b) Stumpy Point

(2) Hatteras Bravo (HATT B) Air Traffic Control Assigned Airspace (ATCAA). FACSFAC VACAPES schedules the standard altitudes of FL240-FL290 with the Federal Aviation Administration (FAA).

(3) HATT B consists of airspace bounded by the geographic limits of Pamlico A and B MOA and encompasses altitudes from 18,000 feet (FL180) to FL290 inclusive. HATT B is an OPAREA which may be released by the FAA to FACSFAC VACAPES in support of the daily flying schedule.

e. Tactical Aircrew Combat Training Systems (TACTS) Range. The TACTS Range is located in the southern portion of W-72A and is used for air combat maneuvering (ACM). This instrumented range is a polygon shaped air space consisting of the following five points (clockwise):

36°15'00"N, 075°30'00"W;
36°15'00"N, 074°30'00"W;
35°30'00"N, 074°30'00"W;
35°30'00"N, 074°56'00"W;
35°54'00"N, 075°30'00"W.

Effective altitudes are from 5,000 feet to unlimited. TACTS flights are tracked by computerized equipment located at NAS Oceana which receives inputs from remote sites adjacent to the range. Commander, Fighter Wing Atlantic (COMFITWINGLANT) schedules the range. When not scheduled by COMFITWINGLANT the

range is available for concurrent use on a real time basis from FACSFAC VACAPES.

f. Anchor Air Refueling Track AR-636. Flight Information Publication (FLIP) published air refueling track located east of 074°50'00"W in W-387, FL200-290. Scheduled by First Fighter Wing (1FW), Langley Air Force Base (AFB), VA.

101.2 UNDERSEA WARFARE (USW) INVESTIGATIVE FORCES. It is possible that unidentified or hostile submarines will be reported within the OPAREAs. In accordance with CINCLANTFLTINST 3120.26 (Series), if this occurs all units shall be moved and exercises and events shall be canceled while the Undersea Warfare (USW) investigative forces are in the area of concern.

101.3 ACTIVE DRUG INTERDICTION. An aircraft participating in active drug interdiction shall have priority over all operations except a Search and Rescue (SAR) in the rescue phase, a medical evacuation (MEDEVAC) or an active USW investigation.

101.4 SAR. FACSFAC VACAPES shall be kept informed of all activities within its areas of responsibility (AOR) in order to clear the area required by SAR missions. SAR, USW surveillance and USW investigations have equal priority. FACSFAC VACAPES will coordinate with the Commander-in-Chief Atlantic Fleet (CINCLANTFLT) Duty Officer when requesting ships to assist in a SAR evolution. The decision to participate rests with the unit Commanding Officer or his operational chain of command.

101.5 ATLANTIC FLEET OPAREA TACTICAL DATA SYSTEMS (TDS) LINK. In accordance with CINCLANTFLTINST C3560.1(Series), Fleet TDS ships and aircraft shall participate in the Atlantic Fleet (LANTFLT) OPAREA TDS Link with FACSFAC VACAPES when operating within the boundaries of the FACSFAC VACAPES OPAREAs. FACSFAC VACAPES is able to provide 24 hour LINK 11 services, either High Frequency (HF) or Ultra High Frequency (UHF) to all capable units. While participating in battle group link operations within the FACSFAC VACAPES OPAREAS, TDS ships are exempt from the requirements of establishing LINK 11 with FACSFAC VACAPES unless desired by the battle group. FACSFAC VACAPES promulgates a monthly Operational Tasking (OPTASK) LINK.

102 GENERAL REGULATIONS. All range safety precautions and regulations contained in CINCLANTFLTINST 3120.26(Series) shall apply in the OPAREAs. FACSFAC VACAPES imposes some additional safety requirements which may be waived by the FACSFAC VACAPES Commanding Officer as the situation dictates.

102.1 AREA CLEARANCE. The following general rules apply to area clearances within the FACSFAC VACAPES OPAREAs:

a. The dropping of any ordnance, live or inert, is considered a hazardous event. All hazardous or exclusive operations and exercises conducted in FACSFAC VACAPES OPAREAs require clearance from FACSFAC VACAPES. The firing or dropping of ordnance must be scheduled with FACSFAC VACAPES. **Firing Exercises are not authorized without prior FACSFAC VACAPES approval.**

b. Non-hazardous/concurrent air, surface and subsurface operations such as Independent Steaming Exercise (ISE) transits, navigation drills, Deck Landing Qualifications (DLQ), helicopter operations, etc., do not require a specific clearance/message request. Although not required, it is highly recommended that all aircraft schedule their events for concurrent air operations with FACSFAC VACAPES prior to entering the Warning Area.

NOTE: It is the responsibility of individual units and/or group Officer in Tactical Command (OTC)/Officer Conducting Exercise (OCE) to make themselves aware of, plot and remain clear of HOT areas and conduct their operations outside exclusive use areas.

c. Clearance for a surface area does not include the airspace above or the subsurface below. Airspace assignment does not include the surface below. Specific subsurface clearance is required for any subsurface operation.

102.2 AREA ASSIGNMENT TIMES. Times for events listed in the FACSFAC VACAPES Operations Schedule (OPSKED) are in ZULU time. Hazardous or exclusive events requires a minimum of 72 hours prior notification to FACSFAC VACAPES. With the exception of Surface Grids 7CD, 8CD(surface to FL200) and Surface Area 28 (surface to 4000 feet) in the VCOA. These areas have a 24 hour standing NOTMAR and can be near/real time scheduled. Contact GIANTKILLER via radio-telephone or call the Area Coordinator at 433-1320.

102.3 OCE RANGE RESPONSIBILITIES.

a. For all operations, the ultimate responsibility for the safe conduct of the exercise rests with the OCE.

b. An OCE shall be designated for all multiple unit exercises. For single unit exercises the OCE shall be the unit conducting the exercise. For air operations, the OCE may delegate responsibility to an airborne observer. The observer shall be so identified in the Letter of Instruction (LOI) or Pre-Exercise (PRE-EX) message.

c. Local control of each operation is vested in the OCE.

d. In the event two or more exercise participants are utilizing the same servicing unit, the OCE shall coordinate utilization of the service.

e. All exercises shall be conducted in accordance with established operating procedures and safety criteria.

f. Exercises shall be conducted only in assigned areas. The OCE must ensure any unit providing a service remains within the assigned area. The OCE is responsible for requesting airspace/surface OPAREAs for the servicing unit.

g. The OCE shall ensure all exercise units operating in FACSFAC VACAPES OPAREAs maintain a continuous guard on the FACSFAC VACAPES HF coordination net, area UHF frequencies or Guard frequencies.

h. All units conducting firing or other hazardous activity shall ensure compliance with Section 8, Chapter 1 of CINCLANTFLTINST 3120.26(Series) and all Fleet Exercise Publications (FXP). FACSFAC VACAPES shall promulgate Notices to Mariners (NOTMARS) as applicable. The OCE shall permit firing or

jettisoning of aerial targets only when the area is confirmed to be clear of nonparticipating units, both civilian and military. Due to the density of pleasure/fishing craft in the vicinity of D-334.390 (36°46'00"N, 075°56'00"W), special vigilance should be exercised by the OCE and all firing exercise participants to ensure the range is clear.

i. The OCE shall exercise particular caution in the vicinity of known fishing areas including the area bounded by the following:

37°00'00"N, 075°22'00"W;
36°36'00"N, 075°18'00"W;
36°51'00"N, 075°55'00"W;
37°32'00"N, 075°25'00"W;
36°46'00"N, 075°47'00"W.

Firing is not permitted beneath or within 5 NM from centerline of AR-9 and AR-8 as depicted on Defense Mapping Agency Hydrographic/ Topographic Center (DMAHTC) Chart 12203. All units conducting firing events shall contact FACSFAC VACAPES (GIANTKILLER) on HF or UHF one hour prior to scheduled commencement time for confirmation of clearance by FACSFAC VACAPES OPSKED event number. Continuous guard of FACSFAC VACAPES communications nets shall be maintained during firing events to allow rapid termination of firing if range is fouled by a SAR, interceptor scramble, etc.

j. The following types of firing events will normally be scheduled in the areas listed due to long term assignment of scheduled airspace. These events can be coordinated in other areas to meet operational requirements.

(1) Surface-to-surface and air-to-air gunnery: Areas 7C/D and 8C/D within/beneath W-386, 20,000 feet and below (max. ordinate 18,500 feet) unless otherwise noted.

(2) Surface-to-air gunnery and missile exercises (MISSILEX): Surface to unlimited except gunnery in W-50/D-334.390 and R-6606 (max. ordinate 18,500 feet).

(3) Surface-to-surface gunnery. Area 28 within/beneath W-72A: 4,000 feet and below (max. ordinate 3,500 feet) within Area 28.

(4) Surface-to-air gunnery (against aircraft towed target). Areas Air-1N, Air-1S within/beneath W-72: 20,000 feet

and below for 5"54/3"50, and 24,000 feet and below for Close In Weapons System (CIWS)/PACFIRE. The OCE is responsible for ensuring that any ordnance fired not exceed the altitude restrictions. Higher altitudes can be obtained from FACSFAC VACAPES on a case by case basis.

103 COMMUNICATIONS. The communications procedures established in this chapter are essential for efficient and safe operations within the FACSFAC VACAPES OPAREAs and shall be adhered to by all units. Communications shall be in accordance with the effective editions of Naval Warfare Publications (NWP 3-50.22), Naval Tactical Publications (NTP-4), Joint Allied Naval Publications (JANAPS), Allied Communication Publication (ACP-125) and other appropriate publications and instructions as modified herein.

103.1 COMMUNICATION OF VITAL INFORMATION. All units operating in the FACSFAC VACAPES OPAREAs shall maintain positive two-way communications with FACSFAC VACAPES. Tactical call sign for FACSFAC VACAPES is GIANTKILLER.

a. Instructions for the reporting of vital information are contained in NWP 3-50.22, NWP-1-03.1, NWP 3-22.5 SAR TAC, Joint Pub 3-50.1 Vol. I and II) and Allied Tactical Publication (ATP-1C) (Vol. I).

b. SAR communications are in accordance with NWP 3-50.22 and NWP 3-22.5 SAR TAC.

103.2 MOVEMENT REPORTS (MOVEREPS). MOVEREPS shall not be considered a request for clearance within the FACSFAC VACAPES OPAREAS, and are not required by FACSFAC VACAPES.

103.3 OPERATIONAL ORDERS (OPORDERS). Although OPORDERS are desired by FACSFAC VACAPES, they are not considered requests for clearance to operate in the FACSFAC VACAPES OPAREAs.

103.4 FACSFAC VACAPES RADIO COMMUNICATIONS. FACSFAC VACAPES is the Net Control Station for the VACAPES OPAREAs and continuously guards the following circuits: Primary HF 4373.4 kHz (4372 kHz range), Secondary HF 8298.4 kHz (2252 kHz USB) and Fleet Satellite High Communications (SATHICOMM). ANDVT Parkhill and Vinson are also available. Refer to the current Operational Tasking Link Message (OPTASKLINK) for frequencies. Units operating in FACSFAC VACAPES OPAREAs shall adhere to the following procedures:

a. Live firing/hazardous exercise communication requirements. Positive two-way communications with FACSFAC VACAPES shall be established and maintained 1 hr prior to and during any live firing or otherwise hazardous exercise. The communications net will be FACSFAC VACAPES HF primary or the circuit designated. They will be promulgated to all participant units at the Face to Face Brief (see Chapter IV for Missile Exercise specific procedures). Permission to fire or to conduct any hazardous event shall not be granted if this requirement is not met. If at any time during a firing or hazardous event, communications are lost with FACSFAC VACAPES, the event shall be terminated until communication is reestablished.

b. Submit reports of inability to communicate using FACSFAC VACAPES primary/secondary HF by message to FACSFAC VACAPES. This message shall include the position of the unit trying to establish communications, the time (ZULU) and all frequencies that were utilized.

c. Daily changing call signs from AMSH-1707 series shall be used on FACSFAC VACAPES radio circuits, except for aircraft on routine missions which are in communication with FACSFAC VACAPES.

d. Authentication’s shall be made using AMSA 1800 series authentication tables. Encryption shall be made using AMSC 608 or AMSC 622, as appropriate.

e. Cancellation of scheduled events shall be in accordance with Chapter III, Paragraph 308.

103.5 COMMUNICATIONS PROCEDURES FOR EXERCISES INVOLVING AIRCRAFT. The following procedures apply to all operations and exercises conducted within the FACSFAC VACAPES OPAREAs involving aircraft:

a. Aircraft exercise frequencies are assigned in the FACSFAC VACAPES OPSKED for events which FACSFAC VACAPES provides commercial aircraft or range control services.

b. If a delay is anticipated in the arrival of an assigned service or if the service is canceled, the command providing the service shall notify FACSFAC VACAPES. FACSFAC VACAPES shall notify the unit receiving the service by voice or message. Cancellation notification made by voice shall be confirmed by message.

c. All aircraft enroute to the OPAREAs shall inform FACSFAC VACAPES of event number, working area and working unit. Aircraft working with Military Radar Units (MRU) and/or Airborne Radar Units (ARU) shall inform FACSFAC VACAPES on check-in. Aircraft working self-contained will be switched to their working frequency once in the area. All aircraft are required to continuously monitor UHF/VHF Guard.

d. Aircraft cleared into FACSFAC VACAPES OPAREAs to conduct operations with ships will be under FACSFAC VACAPES control until in communication with, or in sight of, the ship. At that time a shift to the ship's control frequency will be approved with instructions to contact FACSFAC VACAPES if communications with the ship cannot be established or are lost and not re-established during the operation and/or upon completion of the operation.

e. Surface units conducting air operations in FACSFAC VACAPES OPAREAS shall contact FACSFAC VACAPES on HF 4373.4 KHZ/4373 kHz USB or International Maritime Satellite (INMARSAT)/telephone(POTS) (757)433-1230 thirty (30) minutes prior to commencing and upon completion of flight operations.

f. Aircraft carriers shall provide FACSFAC VACAPES with a 30 minute notification in order to activate requested airspace and their scheduled LPOD time. FACSFAC VACAPES will turn Warning Area airspace over to the FAA 30 minutes after LPOD. If airspace is required beyond scheduled LPOD, contact FACSFAC VACAPES.

g. All MRU/ARUs shall provide FACSFAC VACAPES with a 5 minute notification prior to the scheduled event time in order to complete airspace briefing and correlation check.

h. Common area frequency 337.225 MHz is available for aircraft-to-aircraft deconfliction while operating in any FACSFAC VACAPES OPAREA. This frequency is not monitored or recorded by Air Traffic Control.

i. Continuous radar service is available. The following FACSFAC VACAPES frequencies are monitored in the indicated Warning Area:

(1) W-72, W-50

Check in/out	
233.7	(P)
118.125	(P)
271.5	(S)

(2) W-386, W-387

Check in/out	
238.1	(P) in Air D-K
249.8	(P) in Air A-C
118.125	(P)
350.0	(S)

(3) W-122, W-110, HATT B

Check in/out	
251.3	(P)
251.6	(P)
135.875	(P)
310.1	(S)

(4) W-105, W-106

Check in/out	
338.1	(P)
135.225	(P)
305.0	(S)

(5) W-107

Check in/out	
135.725	(P)
255.0	(P)
312.3	(S)

103.6 AIRCRAFT PENETRATION OF AND OPERATION WITHIN THE ATLANTIC AIR DEFENSE IDENTIFICATION ZONE (ADIZ). Aircraft operating in the FACSFAC VACAPES OPAREAs shall:

a. Check in/out with FACSFAC VACAPES on frequencies listed in paragraph 103.5i.

b. Comply with ADIZ procedures as outlined in latest edition of FLIP Enroute Instrument Flight Rules (IFR) Supplement.

104 AIR TRAFFIC CONTROL (ATC) PROCEDURES. FACSFAC VACAPES is an ATC Facility. Standard ATC procedures and coordination apply. Aircraft proceeding into FACSFAC VACAPES airspace can expect a positive hand-off and communications transfer to FACSFAC VACAPES (Call sign: GIANTKILLER) from adjacent air traffic control facilities. Letters of Agreement (LOA) have been effected with adjacent ATC facilities and MRUs to provide for positive air traffic control and coordination. Compliance with ATC instructions issued by FACSFAC VACAPES is mandatory unless the pilot invokes his emergency authority. On initial check-in, pilots are to provide aircraft call sign, number in flight and event number. Entry into the OPAREA may be delayed or disapproved without an event number assigned by FACSFAC VACAPES.

104.1 FLIGHT PROCEDURES

a. Routing. Flights to/from FACSFAC VACAPES airspace shall proceed via approved stereotype routes, pre-briefed special military operations, International Civil Aviation Organization (ICAO) flight plans or appropriate flight plans in accordance with the Department of Defense (DOD) FLIP Planning Document.

b. Interrogation Friend or Foe (IFF) Equipment. Aircraft in FACSFAC VACAPES airspace shall SQUAWK MODES II, III and IV, where applicable at all times. FACSFAC VACAPES is capable of conducting MODE IV checks with aircraft in the vicinity of W-72 and W-386. Within 80 NM of NAS OCEANA, aircraft desiring a MODE IV check should contact FACSFAC VACAPES on 289.9 MHz (primary) or 361.3 MHz (secondary) with call sign, range and bearing from Oceana Tactical Air Navigation (TACAN) beacon. MODE III Codes shall be as assigned by the controlling agency and shall not be changed unless directed by the Air Traffic Controller. Aircraft operating in the Warning Areas which have not been assigned a discrete MODE III Code and are not under the control of a military or FAA Facility, shall squawk Code (4000). Aircraft that expect to operate in FACSFAC VACAPES airspace without a functioning transponder, shall coordinate each flight prior to take off to obtain permission to conduct no IFF operations in FACSFAC VACAPES airspace. Aircraft that experience a transponder failure in flight may be denied entrance or required to depart the warning area dependent upon traffic volume, weather conditions and mission requirements.

c. Communications and Control. Aircraft operating to/from FACSFAC VACAPES airspace on an IFR Flight Plan shall be handled as described in paragraph 104.

(1) Aircraft operating under Visual Flight Rules (VFR) to/from FACSFAC VACAPES airspace are required to check in/out with FACSFAC VACAPES. Aircraft shall monitor the primary frequency for the warning area in which they are operating , for advisories and containment alerts.

(2) Aircraft shall not operate in FACSFAC VACAPES airspace without an operable two-way air-to-ground radio.

(3) Long range aircraft (P-3/C-130) entering the FACSFAC VACAPES OPAREAs for extended operations are required to issue an operations normal report (OPS NORMAL) every hour while under FACSFAC VACAPES' jurisdiction. All other aircraft, including

helicopters, are required to give OPS NORMAL reports every half hour. Lost communications and possibly SAR procedures shall be initiated if communication requirements are not adhered to. Exceptions to these requirements may be granted for special missions such as USW, SAR and aircraft working under positive control of a surface unit. Pilots requesting exception must provide the controller with a time when communications shall be reestablished. Use of HF is encouraged.

(4) GIANTKILLER is the centralized point of contact for all “Safe-on-deck” calls for aircraft departing US Naval Ships in the VCOA and landing in FACSFAC area of responsibility. All aircraft departing USS Ships shall maintain the same callsign throughout the flight including arrival at final destination. Each aircraft should have a flight plan filed 30 minutes prior to departure from USS Ship (Ref. FACSFACVACAPESINST 3120.1G para. 104.7C). GIANTKILLER AND SEALORD (FACSFAC JAX) will be working together to keep an active record of aircraft departing from ships to destination airfield. Pilots (including wingmen) should request the destination tower to pass a “Safe-on-deck” call to GIANTKILLER. Destination stations shall contact GIANTKILLER via telephone at DSN:433-1230/1 or COMM:757-433-1230/1. If emergency aircraft must land at a civilian airfield, the pilot in command shall contact their respective squadron to give a “Safe-on-deck” call and any other services requested. The squadron shall then contact FACSFAC and pass the safe on deck time.

d. Navigation. The pilot in command of each aircraft or flight is ultimately responsible for keeping the aircraft within assigned airspace and for compliance with clearances and controller directions. It is imperative that Boundary integrity be maintained at all times. Aircraft and flights failing to comply with this requirement shall be instructed to depart FACSFAC VACAPES airspace.

e. Separation. Aircraft separation by FACSFAC VACAPES within assigned airspace shall normally fall into one or more of the following categories:

(1) Arriving and Departing Aircraft. Successive arrivals and departures are provided positive separation from one another.

(2) Concurrent Use. Airspace assigned jointly to different units within a defined portion of a Warning Area for operations are separated by the principle of "See and Avoid" under Visual Meteorological Conditions (VMC).

(3) Exclusive Use. Airspace within a defined portion of a Warning Area assigned to participating units for a specific event. It is separated by exclusion to all nonparticipating units or activities. Exclusive use clearances shall always be designated as such in the FACSFAC VACAPES OPSKED and confirmed prior to operating exclusively.

(4) Instrument Meteorological Conditions (IMC) Operations. Pilots who cannot operate their aircraft VMC while in the OPAREA must immediately advise the controlling agency. An altitude assignment and an Instrument Flight Rules (IFR) clearance to their destination will be provided. The exception to this rule is when the area has been scheduled for exclusive use and the Officer in Charge (OIC) specifically acknowledges full responsibility for Safety of Flight and aircraft seperation.

(5) Edge of Warning Area Separation. Pilots will maintain a minimum of 2.5 NM separation from edge of Warning Area boundaries.

f. Lost Communications Procedures. Federal Air Regulation (FAR) 91.185 applies in FACSFAC VACAPES airspace in addition to the following procedures:

(1) Inbound. Aircraft proceeding inbound to the Warning Areas who are unable to contact FACSFAC VACAPES shall execute appropriate lost communications procedures and return to base.

(2) Outbound. Aircraft departing the Warning Area who lose communications shall execute appropriate lost communications procedures and proceed via filed route.

g. Altimeter Settings. Aircraft operating above 5,000 feet in the Warning Areas shall set their altimeter to 29.92 inches or 1013.2 millibars.

h. Due to the high density of air operations, air crews are cautioned to maintain a vigilant lookout at all times. All aircraft are required to operate IFF equipment in accordance with North American Aerospace Defense Command (NORAD) Regulation 55-68 and CINCLANTFLTINST 3120.29. Monthly CINCLANTFLTNOTE S3120 delineates appropriate tables in above publications. NORAD Regulation 55-26 provides guidance for conducting ADIZ operations.

NOTE: Extensive Air Intercept Controller (AIC) training is conducted in W-72 north of the 115° radial from the Naval Air Station Oceana (NTU) TACAN.

NOTE: During daylight hours Monday through Friday, units conducting air operations may encounter aircraft dropping sonobuoys.

104.2 Interceptor Operations.

a. Active Air Defense interceptor operations shall be conducted in accordance with FAA Handbook 7610.4 (series) and applicable regulations. These operations shall be conducted under direct authority of CINC NORAD and Regional Sector Air Operations Center (SAOC). i.e. NEADS or SEADS.

b. Intercept Training Activities shall be conducted in accordance with FAA Handbook 7610.4 (series) and applicable regulations. Under no circumstances, will any unit conduct interceptor training operations on unknown aircraft or on aircraft not part of their event, without proper authorization from CINC NORAD and under direct control provided by a SAOC. Unknown targets within assigned airspace are not to be intercepted without proper authority. Intercept procedures for major exercises, e.g. JTFEX (series), shall be briefed at the pre-exercise Air Coordination Conference.

104.3 MILITARY AIRSPACE BOUNDARY INTEGRITY. The Chief of Naval Operations (CNO) and FACSFAC VACAPES policy on maintaining area boundary integrity for aircraft in OPAREAs is:

a. Aircraft operating independently and commands exercising command and control of aircraft in SUA or ATCAAs are responsible for ensuring that flight operations are conducted within the vertical and horizontal limits of that assigned airspace. This requires a continuing re-assessment of the accuracy of the position of the controlling ship or aircraft, awareness of appropriate aeronautical charts and assignment of buffer airspace as appropriate. It is imperative military air operations be constrained to assigned airspace except in case of emergency or military necessity. Pilots will maintain a minimum of 2.5 NM separation from edge of Warning Area boundaries.

b. Prompt communication to the FAA and FACSFAC VACAPES shall be made when approved standards of separation cannot be maintained.

c. Whiskey Alert. The phrase "Whiskey Alert" describes the unauthorized exit from Special Use Airspace (SUA) or ATCAA by aircraft into controlled airspace. SUA includes Restricted Areas, Warning Areas and Military Operating Areas (MOAs). Commands who have command and control over aircraft which generate a Whiskey Alert shall immediately notify FACSFAC VACAPES land line or radio and submit a report of circumstances within 48 hours and if directed.

d. When airspace outside of established OPAREAs is required on a Real Time basis, FACSFAC VACAPES shall coordinate the request with the appropriate Air Route Traffic Control Center (ARTCC).

NOTE: When radar command and control of aircraft is being provided by a ship or shore unit in Warning Areas, Restricted Areas, MOAs or ATCAAs, continuous two-way radio or land line communication between the controlling unit and FACSFAC VACAPES is mandatory.

104.4 SAR ON-SCENE COMMANDER PROCEDURES. The first unit on scene following a mishap normally becomes the SAR On-Scene Commander. The On-Scene Commander shall notify FACSFAC VACAPES that he is assuming SAR On-Scene Commander responsibilities and is switching to UHF SAR common, 282.8 MHz. FACSFAC VACAPES shall vector aircraft away from the airspace for an appropriate distance surrounding the SAR area and keep non-participants clear. FACSFAC VACAPES shall vector other SAR aircraft to the SAR scene and switch them to 282.8 MHz as early as possible. All non-participants must remain well clear of the SAR area. SAR On-Scene Commander responsibilities shall normally be assumed by the U.S. Coast Guard when an appropriate unit arrives in the SAR area.

104.5 CARRIER AIR WING FLY-OFFS. Air Wing Fly-Offs shall be conducted in accordance with COMNAVAIRLANTINST 3100.1(Series) and Chapter VI of this manual.

104.6 SPECIAL EXERCISES. Any exercise involving an increase in the airway traffic to/from FACSFAC VACAPES OPAREAs must include coordination with an appropriate FAA representative at planning conferences/ briefings. FACSFAC VACAPES can assist in the coordination of appropriate representation from affected FAA and/or military facilities.

104.7 AIRCRAFT SPIN EXERCISES. Aircraft spin exercises are conducted within airspace that overlies the Dare County Restricted Area (R-5314), 14,500 feet to FL290 inclusive, east of the Alligator River (see Figure 2-4). This is the only authorized spin exercise area in the Hatteras ATCAA and restricted area. Nonparticipating aircraft under the control of FACSFAC VACAPES or any other controlling agency shall be kept well clear of the spin exercise area.

CAUTION: The area west of the Alligator River overlying Dare County contains Class "A" Airspace. VFR flights are not authorized above FL180.

104.8 FLIGHT PLAN FILING

a. Air Wing Fly-Offs. Flight Plan messages shall be received by FACSFAC VACAPES a minimum of five days in advance of the earliest proposed departure time. Originators should send an information copy of flight plan messages to destination stations. See Chapter VI of this manual for additional guidance.

b. Transition Flights. Aircraft desiring to transit FACSFAC VACAPES offshore airspace originating from seaward should send all Flight Plan messages to FACSFAC VACAPES for action with an information copy to their destination stations. The Flight Plan message should reach FACSFAC VACAPES with as much lead time as possible, but not less than three hours prior to the proposed departure time.

c. Air Filing. Aircraft desiring to air file Flight Plans for departure from OPAREAs under the control jurisdiction of FACSFAC VACAPES shall contact FACSFAC VACAPES or the appropriate Flight Service Station at least 30 minutes prior to estimated time of departure from the OPAREA. Because of the possible time delay involved or the possibility of denial, air crews are discouraged from air filing Flight Plans. Prior to departure from home field, pilots should pre-file a round-robin flight plan. Round-robin flights should include the estimated delay time in the OPAREA.

d. Military Training Routes (MTR). Aircraft desiring to fly MTRs scheduled by FACSFAC VACAPES shall file in accordance with the DOD FLIP AP1/B and Paragraph 104.9 of this manual.

104.9 ATC USERS BRIEF. Units desiring an ATC brief on OPAREA/ MTR course rules are encouraged to contact FACSFAC VACAPES via telephone or message. Make requests by telephone directly to the ATC Officer, DSN 433-1235, Comm. (757) 433-1235.

104.10 MTR. The general operating procedures for conducting flight operations on MTRs are contained in chapters 1 and 2 of the DOD FLIP AP1/B. All MTRs scheduled by FACSFAC VACAPES are originated and governed by Commander Fighter Wing, Atlantic (COMFITWINGLANT). FACSFAC VACAPES is responsible for scheduling all MTRs assigned to COMFITWINGLANT, ensuring all air crews scheduled on assigned MTRs are briefed in accordance with FLIP AP1/B, COMFITWINGLANTNOTE 3501, Special Military Operations HAA 7610.4 and the operational procedures contained in effective LOAs. FACSFAC VACAPES is also the COMFITWINGLANT agent for receiving MTR noise complaints.

a. Scheduling Procedures. Requests for IFR and VFR MTRs shall be made to FACSFAC VACAPES (COMM. (757)433-1228/DSN 433-1228). Hours of operation are 0600-1900 local. MTRs are scheduled on a first-come, first-served basis and shall not be flown unless scheduled in advance. MTRs may be scheduled up to five days in advance (six days in advance on holiday weekends) but not less than two and one half hours prior to entry time. Scheduled route time is "time over entry point." Air crews shall receive a current route brief on special operating procedures or constraints not in the route description at least two hours prior to launching on their scheduled route. The briefing items include but are not limited to noise sensitive areas, unpublished obstructions or airports, bird activity, route suspension due to air search, forest fire, etc. Failure to obtain this brief shall be cause for cancellation. All air crews are required to be familiar with the FLIP AP1/B, COMATWINGONEINST 3710.4 series, COMFITWINGLANTNOTE 3501, and SPECIAL MILITARY OPERATIONS 7610.4 series.

(1) IFR Military Training Routes (IR). FACSFAC VACAPES is the designated scheduling agency for the following IRs: IR062, IR714, IR715, IR718, IR719, IR720, IR760, IR761 and IR762. Information required: SQUADRON, CALL SIGN, NUMBER/TYPE, AIRCRAFT TRUE AIR SPEED (TAS), ORDNANCE YES/NO, ESTIMATED TIME OF DEPARTURE (ETD) (Z), ENTRY POINT/TIME (Z), EXIT POINT/TIME (Z), SQUADRON POINT OF CONTACT (POC). Entry times will be scheduled on the hour and half hour only. Thirty minute separation shall be maintained. Faster aircraft behind slower aircraft expect, additional separation.

(2) VFR Military Training Routes (VR). FACSFAC VACAPES is the scheduling activity for the following VRs: VR1751, VR1752, VR1753, VR1754, VR1755, VR1756, VR1757, VR1758, VR1759. Information required: SQUADRON, CALL SIGN, NUMBER/TYPE, AIRCRAFT

TAS, ENTRY POINT/TIME (Z), EXIT POINT/TIME (Z), SQUADRON POC. Entry points shall be scheduled on the hour, and 15, 30 and 45 minutes past the hour. Fifteen minutes separation shall be maintained. Faster aircraft behind slower aircraft expect, additional separation.

b. Air Wing Scheduling. The five day maximum requirement for scheduling does not apply to deployed air wings or air wings about to deploy. IRs/VRs scheduled by message are required to reach FACSFAC VACAPES no later than 1200 local the day before the requested route is required. This allows time for FACSFAC VACAPES to respond, by message, to the originator with confirmation and briefing information.

104.11 Traffic and Collision Avoidance Systems (TCAS). TCAS was developed to provide civilian commercial aircraft advanced notice of a possible collision with another aircraft. The equipment is designed to provide avoidance information to the pilot of equipped aircraft when a conflict is detected. The avoidance portion of the TCAS is called a Resolution Advisory (RA). All TCAS equipped aircraft are responsible to respond to an RA based on unknown aircraft. This response could be in the form of a climb or descent to ensure the safety of the aircraft that is responding to the RA. All commercial/transport aircraft shall be considered to be TCAS equipped. If an aircraft receives an RA but has been informed of the traffic causing it, or has the traffic in sight, it is the pilots decision on whether to comply with the RA or not.

105 SURFACE/SUBSURFACE PROCEDURES

105.1 REQUIRED EVENT PROCEDURES. Units conducting exclusive use or firing events are required to contact FACSFAC VACAPES on HF or UHF, one hour prior to scheduled Commencement of Exercise (COMEX) time for confirmation of clearance and FACSFAC VACAPES OPSKED event number. Continuous guard with FACSFAC VACAPES/GIANTKILLER must be maintained during firing events to allow rapid termination of firing if the range is fouled by SAR, interceptor scramble, etc. Units receiving aircraft or drone services must establish communications with FACSFAC VACAPES one hour prior to on-station time and provide current weather (normally only ceiling and visibility) and confirmation of services by FACSFAC VACAPES event number. Failure to establish communications shall result in loss of services.

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CHAPTER II

AIR, SURFACE, AND SUBSURFACE OPERATING AREAS

201 GENERAL. The FACSFAC VACAPES areas of control include Warning Areas, Restricted Areas, Special Operating Areas (SOA), MOAs and Surface/Subsurface Operating Areas. These areas are depicted on the applicable Defense Mapping Agency Hydrographic Topographic Center (DMAHTC) Charts and figures 2-1 through 2-12 of this manual. The following guidelines are applicable to FACSFAC VACAPES controlled areas.

NOTE: AIRSPACE GRIDS ARE NOT YET DEPICTED ON DMAHTC CHARTS. THE SUBAREA MANAGEMENT AREAS LISTED BELOW WILL HAVE TO BE MANUALLY PLOTTED ON APPROPRIATE CHARTS.

a. Airspace/Surface Grid Interface. Airspace clearances may be issued by Warning Area (i.e. W-72 or Warning Area/Subarea W-72A), but the need exists to precisely define smaller parcels of airspace. Accordingly, the Subarea Management concept has been instituted. Airspace will be requested and scheduled using the subareas described below. Surface clearances will be issued using the Surface Area Grid Reference System, (Figures 2-1).

CAUTION: Airspace and surface clearances are always issued separately. Adherence to these clearances is mandatory. Airspace does not always encompass the same area as the assigned Surface Operating Areas. This situation exists in the following instances:

(1) AR-8 and AR-9, which partially overlay Surface Operating Areas, are not included in the airspace clearance issued when using the Surface Area Grid Reference System.

(2) Two or more Warning Areas may overlay a Surface Operating Area. The airspace clearance issued using the Surface Area Grid Reference System will include only the airspace overlying the Surface Grids and not the entire Warning Area.

b. Subsurface Operations. Subsurface operations may be requested and conducted in all areas. VACAPES (VCOA), Narragansett Bay Operating Area (NBOA) and Cherry Point Operating Area (CPOA) contain submarine transit lanes which are normally used by submarines transiting submerged (98 feet or lower). Submarines entering the surface area (surface down to but not including 98 feet) shall expect mutual area usage. Unless an

exclusive surface area clearance has been obtained from FACSFAC VACAPES by the Submarine Exercise Area Coordinator (SEAC), surface units may be assigned operations in these areas. Concurrent surface and exclusive subsurface clearances are normally granted to the SEAC by FACSFAC VACAPES for submarine operations. In all waters where submarine operations are scheduled, surface units are directed to utilize one or more of the following: cavitation, sonar and/or active fathometer on maximum depth. This requirement may be waived by the OCE for surface participants when coordinated exercises involving submarines are approved by the Submarine Operating Authority (SUBOPAUTH), which is normally the SEAC.

202 VIRGINIA CAPES OPERATING AREA (VCOA). The following are descriptions of the specific air, surface and submarine operating areas within and in the vicinity of the VCOA. Coordinates for Warning Areas located in the VCOA can be found in CINCLANTFLTINST 3120.26(series), AP/1A Flight Information Publication (FLIP) and appropriate DMA Charts.

202.1 AIR OPERATING AREAS. SUA is defined in FLIP AP/1A, below and figure 2-2 . MOAs are depicted on enroute charts and the Hatteras ATCAA is depicted on figures 2-3.

a. Warning Area 50 (W-50). W-50 overlies that portion beyond three miles from the coast of Dam Neck, Virginia (D-334.390). W-50 is divided into subareas ALPHA, BRAVO and CHARLIE (figure 2-4). FACSFAC VACAPES controls surface to 5,000 feet for gunnery exercises, MISSILEXs and aircraft usage. The airspace between 5,000 feet and FL230 is controlled by NAS Oceana Approach Control. Washington ARTCC controls the airspace from FL240 to FL750.

b. Warning Area 72 (W-72). W-72 overlies surface OPAREAs 13 through 43 excluding those portions of areas/subareas underlying AR-8, AR-9, W-110 and W-387 (figure 2-5). Effective altitudes of W-72 are: East of 075°30'00"W surface to unlimited; west of 075°30'00"W surface to, but not including 2,000 feet above mean sea level (MSL) and above FL600. Air operations in airspace overlying surface OPAREAs 13 and 20 are normally controlled by NAS Oceana Approach Control from 2,000 feet to FL230 and by Washington ARTCC from FL240 to FL600. Air operations areas in W-72 may be described by using the surface grid structure (figure 2-1) underlying W-72. The northern portions of areas 13 through 19 underlying AR-9 and W-387 are not a part of W-72. Portions of areas 27, 28, 34, 35, 40, 41, and 43, and all of areas 33 and 39,

underlying W-110 (AR-8) are not a part of W-72. Air space FL240 and above in W-72 is released to Washington Center when not active. Scheduling of operations FL240 and above following this turnover requires coordination at least 15 minutes prior with FACSFAC VACAPES to recall the airspace from Washington Center. All military aircraft must be briefed and be familiar with operations within W-72 prior to entry, if questions arise contact FACSFAC VACAPES at DSN 433-1230 or Comm. (757)433-1230. When requesting/utilizing Special Operating Areas in W-72, refer to the following SOA coordinates as listed below:

W-72 Special Operating Areas (SOA):
TACTS - 5K TO UNLIMITED (UNLTD)

36°15′00″N/075°30′00″W TO
36°15′00″N/074°30′00″W TO
35°10′36″N/074°29′59″W TO
35°54′50″N/075°30′00″W TO BEGINNING POINT

AIR-1 NORTH (CONCURRENT USE ONLY) SURFACE (SFC) TO UNLTD

36°47′00″N/074°30′00″W TO
36°30′00″N/074°30′00″W TO
36°30′00″N/075°30′00″W TO
36°49′00″N/075°30′00″W TO BEGINNING POINT

AIR-1 SOUTH (CONCURRENT USE ONLY EXCEPT FOR EXCLUSIVE USE WITH TACTS RANGE) (SFC TO UNLTD)

36°30′00″N/074°30′00″W TO
36°15′00″N/074°30′00″W TO
36°15′00″N/075°30′00″W TO
36°30′00″N/075°30′00″W TO BEGINNING POINT

AIR-2 SFC TO UNLTD

36°44′00″N/073°30′00″W TO
36°17′30″N/073°30′00″W TO
36°17′30″N/074°24′00″W TO
36°46′45″N/074°23′30″W TO BEGINNING POINT

AIR-3 SFC TO UNLTD

36°12′45″N/073°30′00″W TO
35°45′00″N/073°30′00″W TO
35°45′00″N/074°24′00″W TO
36°12′45″N/074°24′00″W TO BEGINNING POINT

AIR-4 SFC TO UNLTD

35°45′00″N/073°30′00″W TO
35°17′45″N/073°30′00″W TO
35°17′45″N/074°24′00″W TO
35°45′00″N/074°24′00″W TO BEGINNING POINT

AIR-5 SFC TO UNLTD

35°12′30″N/073°30′00″W TO
34°32′15″N/073°30′00″W TO
34°29′18″N/073°34′21″W TO
35°06′00″N/074°24′00″W TO
35°12′30″N/074°24′00″W TO BEGINNING POINT

AIR-6 SFC TO UNLTD

36°42′00″N/072°40′00″W TO
36°15′00″N/072°40′00″W TO
36°15′00″N/073°30′00″W TO
36°44′30″N/073°30′00″W TO BEGINNING POINT

AIR-7 SFC TO UNLTD

36°15′00″N/072°40′00″W TO
35°45′00″N/072°40′00″W TO
35°45′00″N/073°30′00″W TO
36°15′00″N/073°30′00″W TO BEGINNING POINT

AIR-8 SFC TO UNLTD

35°45′00″N/072°40′00″W TO
35°15′00″N/072°40′00″W TO
35°15′00″N/073°30′00″W TO
35°45′00″N/073°30′00″W TO BEGINNING POINT

AIR-9 SFC TO UNLTD

35°15′00″N/072°40′00″W TO
35°06′00″N/072°40′00″W TO
34°31′45″N/073°30′00″W TO
35°15′00″N/073°30′00″W TO BEGINNING POINT

BEACH CORRIDOR (CONCURRENT USE ONLY)

36°46′45″N/074°24′00″W TO
35°06′00″N/074°24′00″W TO
35°10′36″N/074°29′59″W TO
36°47′00″N/074°29′59″W TO BEGINNING POINT

TOMCAT CORRIDOR (CONCURRENT USE ONLY)

36°17′30″N/073°30′00″W TO
36°12′45″N/073°30′00″W TO
36°12′45″N/074°23′30″W TO
36°17′30″N/074°23′30″W TO BEGINNING POINT

HORNET CORRIDOR (CONCURRENT USE ONLY)

35°17′45″N/073°30′00″W TO
35°12′30″N/073°30′00″W TO
35°12′30″N/074°24′00″W TO
35°17′45″N/074°24′00″W TO BEGINNING POINT

NOTE: The new design of the SOAs allows built in transit corridors. All SOAs are located within W-72A/B.

ALTITUDE/FLIGHT LEVELS: SFC - Unlimited (except in the TACTS area, 5K - Unlimited).

INGRESS/EGRESS POINTS:

PT. ALPHA	36°46′30″N/074°25′30″W
PT. BRAVO	36°48′30″N/075°29′00″W
PT. CHARLIE	36°35′00″N/075°29′00″W
PT. DELTA	36°30′00″N/074°25′30″W
PT. ECHO	36°15′00″N/074°25′30″W
PT. FOXTROT	36°15′00″N/073°30′00″W
PT. GOLF	35°15′00″N/074°25′30″W
PT. HOTEL	35°15′00″N/073°30′00″W
PT. INDIA	35°08′00″N/074°25′30″W

NOTE: CONCURRENT AREAS/COORIDORS ARE ESTABLISHED TO PROVIDE ADEQUATE AIRSPACE FOR ROUTING OF AIRCRAFT ENTERING/ DEPARTING W-72 AND THE SOA's. UNLESS DESIGNATED FOR CONCURRENT USE ONLY, ALL OTHER AREAS MAY BE SCHEDULED FOR CONCURRENT OR EXCLUSIVE USE.

NOTE: IT IS THE PILOT'S RESPONSIBILITY TO MAINTAIN AREA CONTAINMENT IAW PARAGRAPH 104.1.E WHEN OPERATING WITHIN THE SOA's. PILOT'S SHALL CONTACT ATC 5 MINUTES PRIOR TO EXITING ASSIGNED SUA FOR CLEARANCE.

NOTE: THE ULTIMATE PURPOSE FOR ENTERING INTO A SUB-AREA MANAGEMENT OPERATION OF THE OPAREAS IS TO ALLOW MULTIPLE SORTIES WITHIN THE CONFINES OF THE DESIGNATED OPAREA. UNITS SHOULD MAKE EVERY EFFORT TO SCHEDULE ONLY THE AMOUNT OF AIRSPACE REQUIRED TO COMPLETE THE MISSION. UNITS SHOULD SCHEDULE ONLY THE ACTUAL TIME REQUIRED.

NOTE: Contact FACSFAC VACAPES on 4373.3 kHz (4372 kHz USB) HF or UHF 233.7 MHz (PRI), 271.5 (SEC), 118.125 MHz (PRI) VHF prior to entry/operations within area 28 (excluding the area beneath/within AR-8), 5,000 feet and below. Gunnery exercises may be in progress (max. ordinate not to exceed 3,500 feet).

c. Warning Area 387 (W-387): W-387 overlies the southern portions of surface areas 8 through 12, and the northern portions of areas 15 through 19 (figure 2-6).

d. Warning Area 110 (W-110): W-110 overlies portions of surface areas 27, 28, 33, 34, 35, 39, 40, 41, and 43 (see figure 2-7). This is Warning Area airspace from surface to FL230. This area is subject to a 15 minute deactivation by FACSFAC VACAPES to facilitate airway traffic below FL230.

e. Warning Area 386 (W-386). W-386 overlies surface areas 1 through 12 excluding those portions of the sub-areas underlying AR-9 (figure 2-8). The southern portions of surface areas 7C/D and 8C/D underlying AR-9 are not a part of W-386 and not included in airspace clearances for W-386. Effective altitudes of W-386 are: East of 075°30'00"W surface to unlimited; west of 075°30'00"W surface to but not including 2,000 feet MSL. Air operations in airspace overlying surface area 6 from 2,000 feet to FL180 must be VFR unless under control of Norfolk Approach Control (2,000 feet to FL230) or Washington ARTCC (FL240 to FL600). Conduct air operations in area 6 below 700 feet MSL in VMC conditions. If either IMC operations or flight altitude of 700 feet or above is required, contact NAS Oceana Approach Control on 374.8 MHz (PRI) or 310.8 MHz (SEC) for clearance and control. For normal VMC operations, contact FACSFAC VACAPES on 118.125 MHz (VHF), 238.1 (PRI) or 350.0 MHz (SEC) prior to entering area 6. The following particulars apply to W-386/W108:

NOTE: WARNING AREA W-108 IS PART OF THE VACAPES OPERATING AREA. HOWEVER, CERTAIN SOAs IN W-386 OVERLAP INTO W-108. FOR CLARITY PURPOSES W-108 WILL BE DISCUSSED IN THIS SECTION.

(1) Airspace in W-386A/108A above 10,000 feet west of ADIZ and at W-386B/108B FL240 and above, east of ADIZ is turned over to Washington Center immediately following exit of the last using unit (Real Time). Coordination at least 15 minutes prior is needed to schedule airspace above 10,000 feet west of ADIZ in W-386A/108A and FL240 and above east of ADIZ in W-386B/108B to allow recall of airspace from Washington Center. Real-Time scheduling of concurrent air operations below 10,000 feet can be done anytime if the area has not been previously reserved.

SOAs:

AIR-A W-108C SFC TO FL230

38°45′00″N/074°36′59″W TO
38°25′30″N/074°58′59″W
THEN 3NM FROM AND PARALLEL TO THE SHORELINE TO
38°36′50″N/074°59′49″W TO
38°45′00″N/074°52′59″W TO BEGINNING POINT

AIR-B SFC TO UNLTD

38°45′00″N/074°29′59″W TO
38°15′00″N/074°30′00″W TO
38°15′00″N/075°03′30″W
THEN 3NM FROM AND PARALLEL TO THE SHORELINE TO
38°25′30″N/074°58′59″W TO
38°45′00″N/074°36′59″W TO BEGINNING POINT

AIR-C SFC TO UNLTD

38°45′00″N/074°20′00″W TO
38°15′00″N/073°30′00″W TO
38°15′00″N/074°30′00″W TO
38°45′00″N/074°30′00″W TO BEGINNING POINT

AIR-D SFC TO UNLTD

38°15′00″N/074°30′00″W TO
37°45′00″N/074°30′00″W TO
37°45′00″N/075°28′15″W
THEN 3NM FROM AND PARALLEL TO THE SHORELINE TO
38°15′00″N/075°03′30″W TO BEGINNING POINT

AIR-E SFC TO UNLTD

38°15′00″N/073°45′00″W TO
37°45′00″N/073°45′00″W TO
37°45′00″N/074°30′00″W TO
38°15′00″N/074°30′00″W TO BEGINNING POINT

AIR-F SFC TO UNLTD

38°15′00″N/073°30′00″W TO
37°57′00″N/073°00′30″W TO
37°45′00″N/072°54′30″W TO
37°45′00″N/073°45′00″W TO
38°15′00″N/073°45′00″W TO BEGINNING POINT

AIR-G SFC TO UNLTD

37°45′00″N/075°00′00″W TO
37°15′00″N/075°00′00″W TO
37°15′00″N/075°30′30″W TO
37°38′45″N/075°31′19″W
THEN 3NM FROM AND PARALLEL TO THE SHORELINE TO
37°45′00″N/075°28′15″W TO BEGINNING POINT

AIR-H SFC TO UNLTD

37°45′00″N/074°30′00″W TO
37°15′00″N/074°30′00″W TO
37°15′00″N/075°00′00″W TO
37°45′00″N/075°00′00″W TO BEGINNING POINT

AIR-I SFC TO UNLTD

37°45′00″N/073°45′00″W TO
37°08′45″N/073°45′00″W TO
37°05′19″N/074°30′00″W TO
37°45′00″N/074°30′00″W TO BEGINNING POINT

AIR-J SFC TO UNLTD

37°45′00″N/072°54′30″W TO
37°13′00″N/072°40′00″W TO
37°09′00″N/073°39′00″W TO
37°45′00″N/073°39′00″W TO BEGINNING POINT

AIR-K SFC TO UNLTD (GUN EXERCISE AREA)

37°15′00″N/074°30′00″W TO
37°05′19″N/074°30′00″W TO
37°00′00″N/075°30′00″W TO
37°15′00″N/075°30′30″W TO BEGINNING POINT

VICTOR CORRIDOR (CONCURRENT USE ONLY)

37°45′00″N/073°39′00″W TO
37°09′00″N/073°39′00″W TO
37°08′30″N/073°45′00″W TO
37°45′00″N/073°45′00″W TO BEGINNING POINT

TEST TRACKS ALTITUDE/FL: 5K-FL500

TEST TRACK A

38°43′45″N/074°18′00″W
THEN ALONG THE COASTAL ADIZ TO
38°15′00″N/074°38′30″W TO
38°15′00″N/075°03′30″W
THEN 3NM FROM AND PARALLEL TO THE SHORELINE TO
38°25′30″N/074°59′00″W TO
38°45′00″N/074°37′00″W TO
38°45′00″N/074°20′15″W TO BEGINNING POINT

TEST TRACK B

38°15′00″N/074°38′30″W
THEN ALONG THE COASTAL ADIZ TO
37°45′00″N/074°59′00″W TO
37°45′00″N/075°28′30″W
THEN 3NM FROM AND PARALLEL TO THE SHORELINE TO
38°15′00″N/075°03′30″W TO BEGINNING POINT

TEST TRACK C

37°45′00″N/074°59′00″W
THEN ALONG THE COASTAL ADIZ TO
37°15′00″N/075°20′00″W TO
37°15′00″N/075°30′00″W TO
37°30′00″N/075°35′00″W

THEN 3NM FROM AND PARALLEL TO THE SHORELINE TO
37°45′00″N/075°28′30″W TO BEGINNING POINT

NOTE: AIRSPACE SOUTH OF 37°30′N (ALTITUDE 11K-14K) AND SOUTH OF 37°21′30″N (ALTITUDE SFC-14K) IN TEST TRACK CHARLIE IS AVAILABLE FOR TRANSIT TO/FROM SPECIAL USE AIRSPACE UPON REQUEST.

LANGLEY CORRIDOR (ACTIVATED WHEN TEST TRACK IS IN USE) (CONCURRENT USE ONLY)-SFC TO UNLTD

38°16′30″N/074°30′00″W TO
37°15′00″N/075°12′30″W TO
37°15′00″N/075°20′00″W TO
38°27′00″N/074°30′00″W TO BEGINNING POINT

INGRESS/EGRESS POINTS:

PT. ALPHA	37°45′00″N/074°55′30″W
PT. BRAVO	38°20′00″N/075°00′00″W
PT. CHARLIE	38°22′00″N/074°30′00″W
PT. DELTA	38°00′00″N/075°00′00″W
PT. ECHO	38°00′00″N/074°30′00″W
PT. FOXTROT	37°45′00″N/073°42′00″W
PT. HOTEL	37°30′00″N/075°06′30″W
PT. JULIET	37°08′45″N/073°42′00″W
DART	37°19′00″N/075°29′30″W
HEELS	37°27′00″N/075°30′00″W

NOTE: IT IS THE PILOT’S RESPONSIBILITY TO MAINTAIN AREA CONTAINMENT WHEN OPERATING WITHIN THE SOA. PILOTS SHALL CONTACT ATC 5 MINUTES PRIOR TO EXITING ASSIGNED SUA FOR CLEARANCE.

f. Employment. VCOAs are scheduled for optimum use by apportioning areas for specific users and types of exercises. These areas and the users/exercises involved are as follows:

(1) W-50/R-6606/Danger Area 334.390 (D-334.390):

Area(s)	User	Typical Exercises
W-50/R-6606/D-334.390	US NAVY SHIPS	Gunnery training
W-50/R-6606	VC-6	Drone launch/control
W-50/A/B/C	SPECWAR US COAST GUARD (USCG)	Classified

(2) W-72:

Area(s)	User	Typical Exercises
14,18,21-25,27-31, 34A/B/D-37	US NAVY Aircraft (USN)	Air-to-air missile exercises
14,15,21A/B,22A/B	USN Ships	Surface-to-air missile exercises, and CIWS gunnery exercises
21C/D,22C/D, 27A/B/D,28	USN Aircraft	Tactical Aircrew Combat Training System (TACTS) Range
W-72B	US AIR FORCE (USAF) AIRCRAFT	AIR COMBAT COMMAND (ACC) flights
W-72A/B	Aircraft Carriers VAW Squadrons DAMNECK (FCTCL) USN Ships	Carrier air ops, AIC training aircraft tracking
28	USN Aircraft USN SHIPS USCG	PRECISION ACCURACY CALIBRATION (PAC) firing (5,000 feet and below)

NOTE: Operating areas 7C/D, 8C/D, W-386, R-6606 and D-334.390 may also be available for air/surface operations and transit. The status can be determined from FACSFAC VACAPES via HF net 4374.3 kHz (4372 kHz USB), 233.7 MHz UHF, 118.125 MHz VHF, prior to the time required.

(3) W-386:

Area(s)	User	Typical Exercises
1,2,7A/B,8A/B	NASA WALLOPS/NAWCAD Patuxent River	Rocket firing/flight test programs
7C/D,8C/D	USN Aircraft/Ships	Gunnery exercises
9C/D	USN Aircraft/Ships	Torpedo and ASW exercises
6	COMHELTACWING ONE	AIR MINE COUNTER MEASURE (AMCM) Operations
W-386	USAF Aircraft	Exclusive Air Operations
W-108	NAVAIRWARCENAD Patuxent River	RDT&E Projects
	Various NORAD/ USAF aircraft	Air Intercept/ Maneuvering Training

NOTE: This employment is not intended to prohibit users from requesting these or other areas, nor does it entitle the primary user to unlimited use. Consideration of requests for airspace utilization is conducted and provided for in the weekly FACSFAC VACAPES OPSKED.

202.2 SURFACE OPERATING AREAS. The VCOA surface operating areas lie off the East coast of Virginia and North Carolina. These areas are numerically separated into lettered subareas (figure 2-1).

a. D-334.390, off the coast of Virginia at Dam Neck, is a part of the Dam Neck range complex (figure 2-4).

b. Normal Surface Area Employment. (Figure 2-1)

(1) Surface Areas 1-6, 7A/B, 8A/B, and 9 through 43 are normally naval surface operating areas.

(2) Area 6 is used primarily by COMHELTACWING ONE for surface and airborne mine countermeasure operations.

(3) Areas 7C/D, 8C/D and 28 are Fleet Gunnery Areas where all gunnery operations should be conducted.

(4) Areas 14, 15, 21A/B and 22A/B are normally used for CIWS gunnery exercises, surface-to-surface and surface-to-air missile exercises.

202.3 SUBMARINE OPERATING AREAS (SUBOAs)

a. Submarine operations are normally conducted in areas 15B and D, 16 through 19, 23 through 26, 29 through 32, 35 through 38 and 40 through 43.

b. The following areas are designated submarine transit lanes:

(1) Submarine transit lane ECHO:
36°57'00"N, 074°45'00"W;
36°57'00"N, 072°40'00"W;
36°52'00"N, 072°40'00"W;
36°52'00"N, 074°45'00"W.

(2) Submarine transit lane GOLF:
37°57'00"N, 073°00'00"W;
37°52'00"N, 072°57'30"W;
37°03'00"N, 073°53'00"W;
37°03'00"N, 074°01'30"W.

(3) Submarine transit lane HOTEL:
36°52'00"N, 074°30'00"W;
36°52'00"N, 074°21'00"W;
34°34'30"N, 074°21'00"W;
34°42'30"N, 074°30'00"W.

(4) Submarine transit lane INDIA:
36°52'00"N, 074°21'00"W;
36°52'00"N, 074°12'00"W;
34°30'00"N, 074°12'00"W;
34°28'00"N, 074°13'30"W;
34°34'30"N, 074°21'00"W.

(5) Submarine transit lane WHISKEY:
37°03'00"N, 074°45'00"W;
37°03'00"N, 072°40'00"W;
36°58'00"N, 072°40'00"W;
36°58'00"N, 074°45'00"W.

c. The SEAC for the VCOA is COMSUBLANT: 757-889-1109.

203 ATLANTIC CITY OPERATING AREA (ACOA). The following are descriptions of the specific air and surface operating areas within and in the vicinity of the ACOA. Coordinates for Warning Areas located in the ACOA can be found in CINCLANTFLTINST 3120.26(series), AP/1A Flight Information Publication (FLIP) and appropriate DMA Charts.

203.1 AIR OPERATING AREAS. W-107: W-107 overlies surface OPAREAs as depicted in figure 2-9. Effective altitudes within W-107 are as follows: W-107A, surface to unlimited; W-107B, surface to, but not including 2,000 feet; W-107C, surface to, but not including FL180; W-107D/E/F, surface to unlimited. Hours of operation are intermittent based on published schedules.

SOAs:

AIR-A

38°58′00″N/074°19′59″W TO
39°24′55″N/073°45′47″W TO
39°36′10″N/073°35′12″W TO
39°11′20″N/073°17′00″W TO
38°47′00″N/073°57′15″W TO BEGINNING POINT

AIR-B

39°36′10″N/073°35′12″W TO
39°44′00″N/073°27′49″W TO
39°44′00″N/072°53′01″W TO
39°33′06″N/072°42′26″W TO
39°11′20″N/073°17′00″W TO BEGINNING POINT

AIR-C

39°11′29″N/073°17′00″W TO
39°33′06″N/072°42′26″W TO
39°12′50″N/072°23′00″W TO
38°49′47″N/073°01′01″W TO BEGINNING POINT

AIR-D

38°47′00″N/073°57′15″W TO
39°11′20″N/073°17′00″W TO
38°49′47″N/073°01′01″W TO
38°33′00″N/073°28′15″W TO
38°34′00″N/073°30′58″W TO BEGINNING POINT

AIR-E

38°33′00″N/073°28′15″W TO
39°12′50″N/072°23′00″W TO
39°05′48″N/072°16′12″W TO
38°17′00″N/072°50′02″W TO BEGINNING POINT

NOTE: All SOA's located with W-107A/D/E/F. Altitudes/Flight Levels - 5K to FL500. If units require down to the surface to their complete mission, they may schedule accordingly. Otherwise, 5K will be the hard deck altitude.

NOTE: Unless designated for concurrent use only, all areas may be scheduled concurrent or exclusive use in W-107 OPAREA.

NOTE: W-107B/C parameters and designations will remain unchanged.

203.2 SURFACE OPERATING AREAS. The Atlantic City Operating Area (ACOA) SOAs lie off the east coast of New Jersey and New York. These areas are numerically designated (figure 2-9).

203.3 SUBOAs.

a. There are no designated SUBOAs and submarine operations are rarely conducted in the ACOA.

b. There are no submarine transit lanes in the ACOA.

c. The SEAC for the ACOA is COMSUBGRU TWO: DSN 241-3676/3677, Comm. (203) 449-3676/3677/4621.

203.4 EMPLOYMENT. ACOAs are scheduled for optimum use by apportioning areas for specific users and types of exercises. These areas and the users/exercises involved are:

Area(s)	User	Typical Exercises
All Areas	North East Air Defense Sector (NEADS)/ USAF aircraft	Air Intercept Training
All Areas	NAVAIRDEVCEN	Research & Development Projects
Areas 7 and 13	USN/USCG Ships	Gunnery Exercises

204 NARRAGANSETT BAY OPERATING AREA (NBOA). The following are descriptions of the specific air, surface, and submarine operating areas within and in the vicinity of the NBOA. The NBOA comprises the following Warning Areas: W-105 A/B/C/D/E and W-106 A/B/C/D. Coordinates for Warning Areas located in the NBOA can be found in CINCLANTFLTINST 3120.26(series), AP/1A Flight Information Publication (FLIP) and appropriate DMA Charts.

204.1 AIR OPERATING AREAS. W-105 and W-106 are depicted below and in figure 2-10. Effective altitudes within W-106 are: W-106A, surface to 3,000 feet; W-106B, surface to 8,000 feet; W-106C, surface to 10,000 feet; W-106D, surface to 5,999 feet. Effective altitudes in W-105 are: W-105A/C, surface to FL500; W-105B, surface to 17,999 feet; W-105D, surface to 14,999 feet; W-105E, 15,000 feet to FL500. Air operating Areas are designated as Special Operating Areas (SOAs) and are listed as follows: W-106A/B/C/D, W-105B and W-105A/C/D/E which were subdivided into areas AIR-A/B/C/D/E/F/G. AIR-A through AIR-G were implemented in December 1996 and are not currently listed on DMA/DOD Charts. Updates/changes will be reflected in future publications. When requesting/utilizing Special Operating Areas in W-105A/C/D/E, refer to using AIR-A through AIR-G designations; coordinates are listed as follows:

SOAs:

AIR-A

40°11′55″N/072°46′53″W TO
40°34′00″N/072°19′58″W TO
40°38′00″N/071°59′58″W TO
40°44′00″N/071°59′58″W TO
40°52′15″N/071°26′00″W TO
40°30′00″N/071°26′00″W TO BEGINNING POINT

AIR-B

40°52′15″N/071°26′00″W TO
41°02′25″N/070°42′00″W TO
40°40′00″N/070°42′00″W TO
40°30′00″N/071°26′00″W TO BEGINNING POINT

AIR-C

41°02′25″N/070°42′00″W TO
41°06′52″N/070°22′51″W TO
41°05′26″N/070°19′47″W TO
41°04′35″N/070°16′00″W TO
41°03′43″N/070°14′10″W TO
41°03′21″N/070°13′01″W TO
41°02′32″N/070°09′24″W TO
41°02′29″N/070°05′12″W TO
41°02′34″N/070°01′26″W TO
41°02′38″N/070°00′15″W TO
41°02′30″N/070°00′00″W TO
40°53′00″N/069°43′00″W TO
40°40′00″N/070°42′00″W TO BEGINNING POINT

AIR-D

40°11′55″N/072°46′53″W TO
40°30′00″N/071°26′00″W TO
39°39′33″N/071°26′00″W TO
39°38′42″N/071°33′46″W TO BEGINNING POINT

AIR-E

40°30′00″N/071°26′00″W TO
40°40′00″N/070°42′00″W TO
39°44′15″N/070°42′00″W TO
39°39′33″N/071°26′00″W TO BEGINNING POINT

AIR-F

40°40′00″N/070°42′00″W TO
40°49′45″N/069°58′00″W TO
39°49′06″N/069°58′00″W TO
39°44′15″N/070°42′00″W TO BEGINNING POINT

AIR-G

40°49′45″N/069°58′00″W TO
40°53′00″N/069°43′00″W TO
40°39′50″N/069°23′28″W TO
40°26′46″N/069°06′23″W TO
39°58′00″N/068°29′50″W TO
39°49′06″N/069°58′00″W TO BEGINNING POINT

NOTE: When airspace is not required by a Department of Defense (DOD) Agency, airspace will be returned to controlling agency (Boston/New York Centers). **Airspace North of 41° North is restricted to 10,000 feet MSL and above.**

204.2 SURFACE OPERATING AREAS. The NBOA surface operating areas are located off the coast of Long Island and Narragansett Bay. These areas are numerically separated into lettered subareas as depicted in CINCLANTFLTINST 3120.26 (series) and DMA Charts.

204.3 SUBOAs.

a. Submarine operations are normally conducted in areas 1 through 3 and 6 through 20.

b. The following areas are designated submarine transit lanes:

(1) Submarine transit lane ALPHA:
41°01'30"N, 071°26'00"W;
39°37'30"N, 069°53'30"W;
39°30'00"N, 069°58'00"W;
40°50'00"N, 071°26'00"W.

(2) Submarine transit lane BRAVO:
39°37'30"N, 069°53'30"W;
39°37'30"N, 068°30'00"W;
39°30'00"N, 068°30'00"W;
39°30'00"N, 069°58'00"W.

(3) Submarine transit lane CHARLIE:
40°50'00"N, 071°26'00"W;
39°30'00"N, 069°58'00"W;
39°27'00"N, 070°07'30"W;
40°38'30"N, 071°26'00"W.

(4) Submarine transit lane DELTA:
39°30'00"N, 069°58'00"W;
38°30'00"N, 069°58'00"W;
38°30'00"N, 070°07'30"W;
39°27'00"N, 070°07'30"W.
Extension X-ray:
40°50'00"N, 071°35'30"W;
40°50'00"N, 071°26'00"W;
40°38'30"N, 071°26'00"W;
40°38'30"N, 071°35'30"W.

(5) Submarine transit lane NOVEMBER:
40°38'30"N, 071°35'30"W;
40°38'30"N, 071°26'00"W;
38°30'00"N, 071°26'00"W;
38°30'00"N, 071°35'30"W.

(6) Submarine transit lane SIERRA:
40°50'00"N, 071°45'30"W;
40°50'00"N, 071°35'30"W;
38°30'00"N, 071°35'30"W;
38°30'00"N, 071°45'30"W.

c. The SEAC for the NBOA is COMSUBGRU TWO: DSN 241-3676/3677, Comm. (203) 449-3676/3677/4621.

204.4 EMPLOYMENT. W-105/W-106/NBOA areas are scheduled for optimum use by apportioning areas for specific users and types of exercises. These areas and the users/exercises are:

Area(s)	User	Typical Exercises
4,5A,26 (within W-105A and C)	Surface/subsurface units	Firing events
W-105, W-106	24 NEADS	Air Intercept Training
	Air National Guard	Air Intercept Training

205 CHERRY POINT OPERATING AREA (CPOA). The following are descriptions of the specific air, surface and submarine operating areas within and in the vicinity of the CPOA. Coordinates for Warning Areas located in the CPOA can be found in CINCLANTFLTINST 3120.26(series), AP/1A Flight Information Publication (FLIP) and appropriate DMA Charts.

205.1 AIR OPERATING AREAS. W-122 is depicted in figure 2-11. Effective altitudes are designated for each SOA below. Hours of operation are intermittent based on scheduled operations.

SOAs:

AIR-1 (CONCURRENT USE ONLY) - SFC TO UNLTD

34°50′00″N/076°15′00″W
THEN 3NM FROM AND PARALLEL TO THE SHORELINE TO
35°30′00″N/075°25′00″W TO
35°13′00″N/075°05′00″W TO
34°40′00″N/076°04′00″W TO BEGINNING POINT

AIR-2 - SFC TO UNLTD

34°57′00″N/075°34′00″W TO
34°32′00″N/075°05′00″W TO
34°14′15″N/075°30′15″W TO
34°41′30″N/076°01′15″W TO BEGINNING POINT

AIR-3 - SFC TO UNLTD

35°13′00″N/075°05′00″W TO
34°50′10″N/074°38′40″W TO
34°32′00″N/075°05′00″W TO
34°57′00″N/075°34′00″W TO BEGINNING POINT

AIR-4 - SFC TO UNLTD

34°32′00″N/075°05′00″W TO
34°20′00″N/074°52′00″W TO
33°55′15″N/074°24′15″W TO
33°36′00″N/074°52′00″W TO
34°00′30″N/075°19′24″W TO
34°02′00″N/075°17′00″W TO
34°14′15″N/075°30′15″W TO BEGINNING POINT

AIR-5 - SFC TO UNLTD

34°50′10″N/074°38′40″W TO
34°14′00″N/073°57′00″W TO
33°55′15″N/074°24′15″W TO
34°32′00″N/075°05′00″W TO BEGINNING POINT

AIR-8 (CONCURRENT USE ONLY) - SFC TO UNLTD

34°50′00″N/076°15′00″W TO
34°40′00″N/076°04′00″W TO
34°17′00″N/076°45′00″W TO
34°37′45″N/076°56′00″W
THEN 3NM FROM AND PARALLEL TO THE SHORELINE TO BEGINNING POINT

AIR-9 - SFC TO UNLTD

34°28′00″N/076°25′00″W TO
34°04′30″N/076°05′30″W TO
33°50′30″N/076°28′00″W TO
34°18′30″N/076°42′30″W TO BEGINNING POINT

AIR-10 - SFC TO UNLTD

34°38′30″N/076°07′00″W TO
34°19′00″N/075°43′30″W TO
34°04′30″N/076°05′30″W TO
34°28′00″N/076°25′00″W TO BEGINNING POINT

AIR-11 - SFC TO UNLTD

34°04′30″N/076°05′30″W TO
33°40′30″N/075°46′30″W TO
33°21′30″N/076°14′41″W TO
33°50′30″N/076°28′00″W TO BEGINNING POINT

AIR-12 - SFC TO UNLTD

34°18′30″N/075°43′30″W TO
33°58′33″N/075°21′03″W TO
33°40′30″N/075°46′30″W TO
34°04′30″N/076°05′30″W TO BEGINNING POINT

AIR-13 - SFC TO UNLTD

33°40′30″N/075°46′30″W TO
33°13′00″N/075°24′30″W TO
32°50′00″N/075°57′00″W TO
33°20′00″N/076°15′00″W TO BEGINNING POINT

AIR-14 - SFC TO UNLTD

34°00′00″N/075°19′00″W TO
33°36′00″N/074°52′00″W TO
33°13′00″N/075°24′30″W TO
33°40′30″N/075°46′30″W TO BEGINNING POINT

AIR-15 (CONCURRENT USE ONLY) - SFC TO UNLTD

34°37′30″N/076°56′00″W TO
34°17′00″N/076°45′00″W TO
33°51′00″N/077°30′00″W TO
34°23′15″N/077°30′00″W THEN
3 NM FROM AND PARALLEL TO THE SHORELINE TO THE BEGINNING POINT.

EXCEPT THE AIRSPACE ABOVE FL240 IN THE FOLLOWING AREA:
34°23′15″N/077°30′00″W THEN
3NM FROM AND PARALLEL TO THE SHORELINE TO
34°28′40″N/077°19′00″W TO
33°53′30″N/077°26′11″W TO
33°51′00″N/077°30′00″W TO BEGINNING POINT

AIR-16 - SFC TO UNLTD:

34°04′00″N/077°07′00″W TO
33°33′00″N/076°55′00″W TO
33°10′00″N/077°31′00″W TO
33°51′00″N/077°30′00″W TO BEGINNING POINT

EXCEPT THE AIRSPACE ABOVE FL240 IN THE FOLLOWING AREA:

33°53′30″N/077°26′11″W TO
33°34′00″N/077°30′25″W TO
33°51′00″N/077°30′00″W TO BEGINNING POINT.

AIR-17 - SFC TO UNLTD

34°15′53″N/076°46′57″W TO
33°47′15″N/076°32′45″W TO
33°33′00″N/076°55′00″W TO
34°04′00″N/077°07′00″W TO BEGINNING POINT

AIR-18 - SFC TO UNLTD

33°33′00″N/076°55′00″W TO
33°00′00″N/076°42′00″W TO
32°39′00″N/076°42′00″W TO
32°39′00″N/077°24′00″W TO
33°10′00″N/077°30′00″W TO BEGINNING POINT

AIR-19 - SFC TO UNLTD

33°47′15″N/076°32′45″W TO
33°18′00″N/076°17′30″W TO
33°00′00″N/076°42′00″W TO
33°33′00″N/076°55′00″W TO BEGINNING POINT

AIR-21 - SFC TO UNLTD

33°20′00″N/076°15′00″W TO
32°50′00″N/075°57′00″W TO
32°39′00″N/076°12′00″W TO
32°39′00″N/076°42′00″W TO
33°00′00″N/076°42′00″W TO BEGINNING POINT

AIR-22 - SFC TO UNLTD

32°39′00″N/076°12′00″W TO
32°12′00″N/076°49′00″W TO
32°20′00″N/077°20′00″W TO
32°39′00″N/077°24′00″W TO BEGINNING POINT

NOTE: Unless designated for concurrent use only, all other areas may be scheduled concurrent (mutual) or exclusive use. Multiple areas required for large scale mission/exercises may be scheduled if required.

INGRESS/EGRESS POINTS:

PT. ALPHA	34°38′00″N/076°27′00″W
PT. BRAVO	34°38′00″N/076°50′00″W
PT. CHARLIE	34°40′00″N/076°04′00″W
PT. DELTA	34°17′00″N/076°45′00″W
PT. ECHO	34°00′00″N/075°19′00″W
PT. FOXTROT	33°20′00″N/076°15′00″W
PT. GOLF	34°23′15″N/077°30′00″W
PT. HOTEL	33°51′00″N/077°30′00″W
PT. INDIA	33°10′00″N/077°30′00″W
PT. JULIET	35°30′00″N/075°25′00″W
PT. KILO	35°13′00″N/075°05′00″W
PT. LIMA	34°50′00″N/074°39′00″W
PT. MIKE	32°39′00″N/077°24′00″W

WHISKY CORRIDOR (CONCURRENT USE) - SFC TO UNLTD

34°18′30″N/076°42′30″W TO
32°20′00″N/076°14′41″W TO
33°18′00″N/076°17′30″W TO
34°16′00″N/076°47′30″W TO BEGINNING POINT

X-RAY CORRIDOR (CONCURRENT USE) - SFC UNLTD

34°41′30″N/076°01′30″W TO
34°14′30″N/075°30′30″W TO
34°02′00″N/075°17′00″W TO
33°59′00″N/076°21′30″W TO
34°18′30″N/075°43′30″W TO
34°38′30″N/076°07′00″W TO BEGINNING POINT

ALTITUDES: Unless noted in the individual SOA’s, all altitudes are surface to unlimited.

NOTE: Corridors and ingress/egress points are designed to provide routing/clearance limits for arriving/departing aircraft for W-122 SOAs. Unless assigned an altitude by an ATC facility, pilots ingressing W-122 via the corridors to scheduled SOA’s should fly at odd altitudes (FL190/FL210). Pilots egressing the SOA’s utilizing the corridors should fly at even altitudes (FL200/FL220).

NOTE: Pilots shall not fly through active exclusive use airspace. It is pilot's responsibility to maintain area containment when operating within the SOA's. Pilots shall contact ATC 5 minutes prior to exiting assigned SUA for clearance.

a. MOAs. MOAs, Pamlico A and B and Stumpy Point are south and east of R-5314 (Dare County Target Complex) and overlie portions of the Pamlico Sound (figure 2-3). The effective altitudes of Pamlico A and B MOAs are from 8,000 feet to but not including FL180. The effective altitudes of Stumpy Point MOA are surface to but not including 8,000 feet.

(1) Airspace below Pamlico A and B MOAs is controlled by Washington ARTCC.

(2) HATT B ATCAA, FL240 to FL600 may be available upon request. However, normal altitudes released to FACSFAC VACAPES by Washington ARTCC are FL240 to FL290.

(3) Scheduling priorities for MOAs under FACSFAC VACAPES cognizance are derived from CINCLANTFLT OPORDER 2000 Annex C, Appendix 24, Tab A. Appendix F of this manual provides an integrated list of scheduling priorities.

b. Restricted Area 6606 (R-6606). R-6606 lies between the coast of Dam Neck and the three mile limit and borders the western limit of W-50 from the surface to FL510 (Figure 2-4).

c. HATTERAS B ATCAA. Hatteras ATCAA is released to FACSFAC VACAPES by Washington ARTCC based on existing weather and traffic conditions. ATCAAs are scheduled by FACSFAC VACAPES. Altitudes from FL240-FL600 are available, however requests for altitudes above FL290 will normally be disapproved due to the high density of civil air traffic. (The Hatteras ATCAA may be scheduled individually or collectively (figure 2-3). Units operating in the Hatteras ATCAA shall maintain communications on 251.6 MHz (primary) or 310.1 MHz (secondary).

(1) The Hatteras Bravo (HATT B) ATCAA overlies most of R-5314, 5313 and the Pamlico A&B MOAs (figure 2-3).

CAUTION: Agencies exercising control within Hatteras airspace and HATT B in particular shall have video mapping or other adequate means of ensuring airspace boundary integrity for controlled aircraft. Units using this

airspace shall be thoroughly familiar with all boundaries.

(2) A minimum of one hour lead time during weekdays, and three hours lead time during weekends/holidays is required for FACSFAC VACAPES to coordinate use of the Hatteras ATCAA if not previously requested and scheduled. See Chapter III for scheduling procedures.

(3) Aircraft spin exercises may only be conducted within airspace overlying R-5314 from 14,500 feet to FL290 inclusive, east of the Alligator River (Figure 2-3). This is the only authorized spin exercise area in the Hatteras ATCAA and Restricted Area.

CAUTION: The area west of the Alligator River overlying Dare County contains Positive Control Airspace (PCA). VFR flights are not authorized above FL180.

Non-participating aircraft under the control of FACSFAC VACAPES or any other controlling agency shall be kept well clear of the spin exercise area.

205.2 SOAs. The CPOA SOAs lie off the east coast of North and South Carolina. These areas are numerically designated as depicted in figure 2-11.

205.3 SUBOA. Submarine operations are normally conducted in surface areas 7 and SUBOA SIERRA.

a. The following areas are designated submarine transit lanes:

(1) Submarine transit lane ALPHA:
34°42'30"N, 074°30'00"W;
34°34'30"N, 074°21'00"W;
34°33'30"N, 074°21'00"W;
33°00'00"N, 076°29'00"W;
33°00'00"N, 076°42'00"W;
34°36'00"N, 074°30'00"W.

(2) Submarine transit lane BRAVO:
34°34'30"N, 074°21'00"W;
34°28'00"N, 074°13'30"W;
33°00'00"N, 076°16'00"W;
33°00'00"N, 076°29'00"W;
34°33'30"N, 074°21'00"W.

(3) Submarine transit lane CHARLIE:
32°50'00"N, 078°30'00"W:
32°50'00"N, 075°57'00"W;
32°39'00"N, 076°12'00"W;
32°39'00"N, 078°30'00"W.

(4) Submarine transit lane DELTA:
32°50'00"N, 078°00'00"W;
33°00'00"N, 078°00'00"W;
33°00'00"N, 075°43'00"W;
32°50'00"N, 075°57'00"W.

(5) Submarine Operating Area SIERRA:
32°39'00"N, 077°24'00"W;
32°39'00"N, 076°12'00"W;
32°12'00"N, 076°49'00"W;
32°20'00"N, 077°20'00"W.

b. The SEAC for the CPOA is COMSUBRON SIX: DSN 564-3519, Comm. (757)444-3519.

205.4 EMPLOYMENT. CPOAs are scheduled for optimum use by apportioning areas for specific users and types of exercises. These areas and the users/exercises involved are as follows:

Area(s)	User	Typical Exercises
All Areas	Various USN/USMC/ USAF Aircraft	Air intercept/ Training maneuvering
2-7, 11-14	USN Ships	ACC flights
7, SIERRA	COMSUBRON 6	Subsurface/transit

NOTE: Only concurrent air operations will be scheduled in AIR-1, AIR-8 and AIR-15.

205.5 SEVERE WEATHER AVOIDANCE PLAN (SWAP): SWAP is a Memorandum of Agreement (MOA) between FAA Air Traffic Service, Director, Aviation Programs Division, U.S. Navy, and Director of Operations and Readiness Headquarters, U.S. Air Force to establish mutually agreed interagency coordination and action for the re-routing of civilian airline traffic offshore into the Warning Areas to circumvent thunderstorms along the East Coast of the United States.

a. Inter-service Coordination. Matters pertaining to the use of the offshore corridor and Warning Area sub-divisions will be accomplished by the FAA through FACSFAC VACAPES.

b. Sub-division of Warning Areas. As depicted in figure 2-12, portions of W-107, W108, W-386, W-50, and W-122 and then affected altitudes have been identified as the minimum airspace necessary to accommodate the offshore SWAP corridor.

NOTE: FACSFAC VACAPES will not deny use/priority of any Warning Area airspace to a Department of Defense unit as a result of a SWAP "**REQUEST**" by the Washington ARTCC Traffic Management Unit (TMU). However, FAA Central Flow Control may "**DIRECT**" the recall of SWAP. FACSFAC VACAPES will then "**DIRECT**" all affected DOD units to vacate the airspace as required.

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AREA	
1	4117N 7130W, 4118N 7117W, 4118N 704930W then CCW via a 2.6 NM arc centered at 411530N 704840W to 4113N 7048W, 4110N 7042W, 4110N 7126W
2A	405330N 7210W, 410830N 7126W, 4050N 7126W, 4050N 7210W
2B	4050N 7210W, 4050N 7148W, 4030N 7148W, 4030N 7210W
2C	4050N 7148W, 4050N 7126W, 4030N 7126W, 4030N 7148W
3A	4110N 7126W, 4110N 7104W, 4050N 7104W, 4050N 7126W
3B	4110N 7104W, 4110N 7042W, 4050N 7042W, 4050N 7104W
3C	4050N 7126W, 4050N 7104W, 4030N 7104W, 4030N 7126W
3D	4050N 7104W, 4050N 7042W, 4030N 7042W, 4030N 7104W
4A	4110N 7042W, 4110N 7020W, 4050N 7020W, 4050N 7042W
4B	4110N 7020W, 4110N 701230W, 410130N 6958W, 4050N 6958W, 4050N 7020W
4C	4050N 7042W, 4050N 7020W, 4030N 7020W, 4030N 7042W
4D	4050N 7020W, 4050N 6958W, 4030N 6958W, 4030N 7020W
5A	410130N 6958W, 404830N 6936W, 4030N 6936W, 4030N 6958W
5B	404830N 6936W, 4030N 690415W, 4030N 6936W
6A	4030N 7210W, 4030N 7148W, 4010N 7148W, 4010N 7210W
6B	4030N 7148W, 4030N 7126W, 4010N 7126W, 4010N 7148W
6C	4010N 7210W, 4010N 7148W, 3950N 7148W, 3950N 7210W
6D	4010N 7148W, 4010N 7126W, 3950N 7126W, 3950N 7148W
7A	4030N 7126W, 4030N 7104W, 4010N 7104W, 4010N 7126W
7B	4030N 7104W, 4030N 7042W, 4010N 7042W, 4010N 7104W
7C	4010N 7126W, 4010N 7104W, 3950N 7104W, 3950N 7126W
7D	4010N 7104W, 4010N 7042W, 3950N 7042W, 3950N 7104W
8A	4030N 7042W, 4030N 7020W, 4010N 7020W, 4010N 7042W
8B	4030N 7020W, 4030N 6958W, 4010N 6958W, 4010N 7020W
8C	4010N 7042W, 4010N 7020W, 3950N 7020W, 3950N 7042W
8D	4010N 7020W, 4010N 6958W, 3950N 6958W, 3950N 7020W
9A	4030N 6958W, 4030N 6936W, 4010N 6936W, 4010N 6958W
9B	4030N 6936W, 4030N 6914W, 4010N 6914W, 4010N 6936W
9C	4010N 6958W, 4010N 6936W, 3950N 6936W, 3950N 6958W
9D	4010N 6936W, 4010N 6914W, 3950N 6914W, 3950N 6936W
10A	4030N 6914W, 4030N 690415W, 4010N 6830W, 4010N 6914W
10B	4010N 6914W, 4010N 6852W, 3950N 6852W, 3950N 6914W
10C	4010N 6852W, 4010N 6830W, 3950N 6830W, 3950N 6852W

FIGURE 2-1A. SURFACE AREA GRID COORDINATES FOR NARRAGANSETT BAY OPERATING AREA

11A	3950N 7210W,	3950N 7148W,	3930N 7148W,	3930N 7210W
11B	3950N 7148W,	3950N 7126W,	3930N 7126W,	3930N 7148W
11C	3930N 7210W,	3930N 7148W,	3910N 7148W,	3910N 7210W
11D	3930N 7148W,	3930N 7126W,	3910N 7126W,	3910N 7148W
12A	3950N 7126W,	3950N 7104W,	3930N 7104W,	3930N 7126W
12B	3950N 7104W,	3950N 7042W,	3930N 7042W,	3930N 7104W
12C	3930N 7126W,	3930N 7104W,	3910N 7104W,	3910N 7126W
12D	3930N 7104W,	3930N 7042W,	3910N 7042W,	3910N 7104W
13A	3950N 7042W,	3950N 7020W,	3930N 7020W,	3930N 7042W
13B	3950N 7020W,	3950N 6958W,	3930N 6958W,	3930N 7020W
13C	3930N 7042W,	3930N 7020W,	3910N 7020W,	3910N 7042W
13D	3930N 7020W,	3930N 6958W,	3910N 6958W,	3910N 7020W
14A	3950N 6958W,	3950N 6936W,	3930N 6936W,	3930N 6958W
14B	3950N 6936W,	3950N 6914W,	3930N 6914W,	3930N 6936W
14C	3930N 6958W,	3930N 6936W,	3910N 6936W,	3910N 6958W
14D	3930N 6936W,	3930N 6914W,	3910N 6914W,	3910N 6936W
15A	3950N 6914W,	3950N 6852W,	3930N 6852W,	3930N 6914W
15B	3950N 6852W,	3950N 6830W,	3930N 6830W,	3930N 6852W
15C	3930N 6914W,	3930N 6852W,	3910N 6852W,	3910N 6914W
15D	3930N 6852W,	3930N 6830W,	3910N 6830W,	3910N 6852W
16A	3910N 7210W,	3910N 7148W,	3850N 7148W,	3850N 7210W
16B	3910N 7148W,	3910N 7126W,	3850N 7126W,	3850N 7148W
16C	3850N 7210W,	3850N 7148W,	3830N 7148W,	3830N 7210W
16D	3850N 7148W,	3850N 7126W,	3830N 7126W,	3830N 7148W
17A	3910N 7126W,	3910N 7104W,	3850N 7104W,	3850N 7126W
17B	3910N 7104W,	3910N 7042W,	3850N 7042W,	3850N 7104W
17C	3850N 7126W,	3850N 7104W,	3830N 7104W,	3830N 7126W
17D	3850N 7104W,	3850N 7042W,	3830N 7042W,	3830N 7104W
18A	3910N 7042W,	3910N 7020W,	3850N 7020W,	3850N 7042W
18B	3910N 7020W,	3910N 6958W,	3850N 6958W,	3850N 7020W
18C	3850N 7042W,	3850N 7020W,	3830N 7020W,	3830N 7042W
18D	3850N 7020W,	3850N 6958W,	3830N 6958W,	3830N 7020W
19A	3910N 6958W,	3910N 6936W,	3850N 6936W,	3850N 6958W
19B	3910N 6936W,	3910N 6914W,	3850N 6914W,	3850N 6936W
19C	3850N 6958W,	3850N 6936W,	3830N 6936W,	3830N 6958W
19D	3850N 6936W,	3850N 6914W,	3830N 6914W,	3830N 6936W
20A	3910N 6914W,	3910N 6852W,	3850N 6852W,	3850N 6914W
20B	3910N 6852W,	3910N 6830W,	3850N 6830W,	3850N 6852W
20C	3850N 6914W,	3850N 6852W,	3830N 6852W,	3830N 6914W
20D	3850N 6852W,	3850N 6830W,	3830N 6830W,	3830N 6852W

FIGURE 2-1A

FIGURE 2-1A

21	4024N 7315W, 4033N 7304W, 4036N 7250W, 4020N 7250W, 4020N 7315W
22	4036N 7250W, 4040N 7230W, 4020N 7230W, 4020N 7250W
23	404730N 7230W, 405330N 7210W, 4020N 7210W, 4020N 7230W
24	4020N 7315W, 4020N 7250W, 3954N 7250W, 401130N 7315W
25	4020N 7250W, 4020N 7230W, 4000N 7230W, 4000N 7250W
26	4020N 7230W, 4020N 7210W, 4000N 7210W, 4000N 7230W
27	4000N 7250W, 4000N 7230W, 3940N 7230W, 3954N 7250W
28	4000N 7230W, 4000N 7210W, 3926N 7210W, 3940N 7230W

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AREA	
1	3909N 7437W then 3 NM from and parallel to the shoreline to 3954N 7401W, 40N 7352W, 40N 7337W, 3952N 7329W, 3944N 7341W to origin
2	3944N 7341W, 3944N 7317W, 394347N 731630W, 393330N 733315W to origin
3	394347N 731630W, 3941N 7310W, 392340N 725720W, 391120N 7317W, 393330N 733315W to origin
4	392340N 725720W, 390130N 724130W, 384940N 7301W, 391120N 7317W to origin
5	390130N 724130W, 3846N 7230W, 3826N 7244W, 384940N 7301W to origin
6	3944N 7341W, 393330N 733315W, 392130N 735250W, 3932N 740030W to origin
7	393330N 733315W, 391120N 7317W, 385940N 733620W, 392130N 735250W to origin
8	391120N 7317W, 384940N 7301W, 383750N 732015W, 385940N 733620W to origin
9	384940N 7301W, 3826N 7244W, 3820N 7248W, 383515N 732420W to origin
10	3932N 740030W, 392130N 735250W, 390950N 741130W, 3920N 7419W to origin
11	392130N 735250W, 385940N 733620W, 3848N 735515W, 390950N 741130W to origin
12	385940N 733620W, 383750N 732015W, 383515N 732420W, 3848N 735515W to origin
13	3920N 7419W, 390950N 741130W, 390114N 7425W, 3909N 7437W to origin
14	390950N 741130W, 3848N 735515W, 3858N 7420W, 390114N 7425W to origin

FIGURE 2-1B. SURFACE AREA GRID COORDINATES FOR ATLANTIC CITY OPERATING AREA

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AREA	
1	3730N 753430W then 3 NM from and parallel to the shoreline to 3800N 751120W, 3800N 7500W, 3730N 7500W
2A	3800N 7500W, 3800N 7445W, 3745N 7445W, 3745N 7500W
2B	3800N 7445W, 3800N 7430W, 3745N 7430W, 3745N 7445W
2C	3745N 7500W, 3745N 7445W, 3730N 7445W, 3730N 7500W
2D	3745N 7445W, 3745N 7430W, 3730N 7430W, 3730N 7445W
3A	3800N 7430W, 3800N 7415W, 3745N 7415W, 3745N 7430W
3B	3800N 7415W, 3800N 7400W, 3745N 7400W, 3745N 7415W
3C	3745N 7430W, 3745N 7415W, 3730N 7415W, 3730N 7430W
3D	3745N 7415W, 3745N 7400W, 3730N 7400W, 3730N 7415W
4A	3800N 7400W, 3800N 7345W, 3745N 7345W, 3745N 7400W
4B	3800N 7345W, 3800N 7330W, 3745N 7330W, 3745N 7345W
4C	3745N 7400W, 3745N 7345W, 3730N 7345W, 3730N 7400W
4D	3745N 7345W, 3745N 7330W, 3730N 7330W, 3730N 7345W
5A	3800N 7330W, 3800N 7315W, 3745N 7315W, 3745N 7330W
5B	3800N 7315W, 3800N 7305W, 3757N 7300W, 3745N 725432W, 3745N 7315W
5C	3745N 7330W, 3745N 7315W, 3730N 7315W, 3730N 7330W
5D	3745N 7315W, 3745N 725432W, 3730N 724743W, 3730N 7315W
6	3700N 7554W, 3703N 7554W then 3 NM from and parallel to the shoreline to 3730N 753430W, 3730N 7530W, 3700N 7530W
7A	3730N 7530W, 3730N 7515W, 3715N 7515W, 3715N 7530W
7B	3730N 7515W, 3730N 7500W, 3715N 7500W, 3715N 7515W
7C	3715N 7530W, 3715N 7515W, 3700N 7515W, 3700N 7530W
7D	3715N 7515W, 3715N 7500W, 3700N 7500W, 3700N 7515W
8A	3730N 7500W, 3730N 7445W, 3715N 7445W, 3715N 7500W
8B	3730N 7445W, 3730N 7430W, 3715N 7430W, 3715N 7445W
8C	3715N 7500W, 3715N 7445W, 3700N 7445W, 3700N 7500W
8D	3715N 7445W, 3715N 7430W, 3700N 7430W, 3700N 7445W
9A	3730N 7430W, 3730N 7415W, 3715N 7415W, 3715N 7430W

FIGURE 2-1C. SURFACE AREA GRID COORDINATES FOR VIRGINIA CAPES OPERATING AREA

9B	3730N 7415W, 3730N 7400W, 3715N 7400W, 3715N 7415W
9C	3715N 7430W, 3715N 7415W, 3700N 7415W, 3700N 7430W
9D	3715N 7415W, 3715N 7400W, 3700N 7400W, 3700N 7415W
10A	3730N 7400W, 3730N 7345W, 3715N 7345W, 3715N 7400W
10B	3730N 7345W, 3730N 7330W, 3715N 7330W, 3715N 7345W
10C	3715N 7400W, 3715N 7345W, 3700N 7345W, 3700N 7400W
10D	3715N 7345W, 3715N 7330W, 3700N 7330W, 3700N 7345W
11A	3730N 7330W, 3730N 7315W, 3715N 7315W, 3715N 7330W
11B	3730N 7315W, 3730N 7300W, 3715N 7300W, 3715N 7315W
11C	3715N 7330W, 3715N 7315W, 3700N 7315W, 3700N 7330W
11D	3715N 7315W, 3715N 7300W, 3700N 7300W, 3700N 7315W
12A	3730N 7300W, 3730N 724743W, 3715N 724055W, 3715N 7300W
12B	3715N 7300W, 3715N 724055W, 371257N 7240W, 3700N 7240W, 3700N 7300W
13	3630N 754730W then 3 NM from and parallel to the shoreline to 3650N 7554W, 3655N 7554W, 3655N 7530W, 3630N 7530W
14A	3655N 7530W, 3655N 7515W, 364230N 7515W, 364230N 7530W
14B	3655N 7515W, 3655N 7500W, 364230N 7500W, 364230W 7515W
14C	364230N 7530W, 354230N 7515W, 3630N 7515W, 3630N 7530W
14D	364230N 7515W, 364230N 7500W, 3630N 7500W, 3630N 7515W
15A	3655N 7500W, 3655N 7445W, 364230N 7445W, 364230N 7500W
15B	3655N 7445W, 3655N 7430W, 364230N 7430W, 364230N 7445W
15C	364230N 7500W, 364230N 7445W, 3630N 7445W, 3630N 7500W
15D	364230N 7445W, 364230N 7430W, 3630N 7430W, 3630N 7445W
16A	3655N 7430W, 3655N 7412W, 364230N 7412W, 364230N 7430W
16B	3655N 7412W, 3655N 7400W, 364230N 7400W, 364230N 7412W

16C	364230N 7430W, 364230N 7412W, 3630N 7412W, 3630N 7430W
16D	364230N 7412W, 364230N 7400W, 3630N 7400W, 3630N 7412W
17A	3655N 7400W, 3655N 7345W, 364230N 7345W, 364230N 7400W
17B	3655N 7345W, 3655N 7330W, 364230N 7330W, 364230N 7345W
17C	364230N 7400W, 364230N 7345W, 3630N 7345W, 3630N 7400W
17D	364230N 7345W, 364230N 7330W, 3630N 7330W, 3630N 7345W
18A	3655N 7330W, 3655N 7315W, 364230N 7315W, 364230N 7330W
18B	3655N 7315W, 3655N 7300W, 364230N 7300W, 364230N 7315W
18C	364230N 7330W, 364230N 7315W, 3630N 7315W, 3630N 7330W
18D	364230N 7315W, 364230N 7300W, 3630N 7300W, 3630N 7315W
19A	3655N 7300W, 3655N 7240W, 364230N 7240W, 364230N 7300W
19B	364230N 7300W, 364230N 7240W, 3630N 7240W, 3630N 7300W
20	3600N 7535W then 3 NM from and parallel to the shoreline to 3630N 754730W, 3630N 7530W, 3600N 7530W
21A	3630N 7530W, 3630N 7515W, 3615N 7515W, 3615N 7530W
21B	3630N 7515W, 3630N 7500W, 3615N 7500W, 3615N 7515W
21C	3615N 7530W, 3615N 7515W, 3600N 7515W, 3600N 7530W
21D	3615N 7515W, 3615N 7500W, 3600N 7500W, 3600N 7515W
22A	3630N 7500W, 3630N 7445W, 3615N 7445W, 3615N 7500W
22B	3630N 7445W, 3630N 7430W, 3615N 7430W, 3615N 7445W
22C	3615N 7500W, 3615N 7445W, 3600N 7445W, 3600N 7500W
22D	3615N 7445W, 3615N 7430W, 3600N 7430W, 3600N 7445W
23A	3630N 7430W, 3630N 7412W, 3615N 7412W, 3615N 7430W
23B	3630N 7412W, 3630N 7400W, 3615N 7400W, 3615N 7412W
23C	3615N 7330W, 3615N 7412W, 3600N 7412W, 3600N 7430W

FIGURE 2-1C

23D	3615N 7412W, 3615N 7400W, 3600N 7400W, 3600N 7412W
24A	3630N 7400W, 3630N 7345W, 3615N 7345W, 3615N 7400W
24B	3630N 7345W, 3630N 7330W, 3615N 7330W, 3615N 7345W
24C	3615N 7400W, 3615N 7345W, 3600N 7345W, 3600N 7400W
24D	3615N 7345W, 3615N 7330W, 3600N 7330W, 3600N 7345W
25A	3630N 7330W, 3630N 7315W, 3615N 7315W, 3615N 7330W
25B	3630N 7315W, 3630N 7300W, 3615N 7300W, 3615N 7315W
25C	3615N 7330W, 3615N 7315W, 3600N 7315W, 3600N 7330W
25D	3615N 7315W, 3615N 7300W, 3600N 7300W, 3600N 7315W
26A	3630N 7300W, 3630N 7240W, 3615N 7240W, 3615N 7300W
26B	3615N 7300W, 3615N 7240W, 3600N 7240W, 3600N 7300W
27A	3545N 7526W then 3 NM from the parallel to the shoreline to 3600N 7535W, 3600N 7515W, 3545N 7515W
27B	3600N 7515W, 3600N 7500W, 3545N 7500W, 3545N 7515W
27C	3530N 7525W then 3 NM from and parallel to the shoreline to 3545N 7526W, 3545N 7515W, 3530N 7515W
27D	3545N 7515W, 3545N 7500W, 3530N 7500W, 3530N 7515W
28A	3600N 7500W, 3600N 7445W, 3545N 7445W, 3545N 7500W
28B	3600N 7445W, 3600N 7430W, 3545N 7430W, 3545N 7445W
28C	3545N 7500W, 3545N 7445W, 3530N 7445W, 3530N 7500W
28D	3545N 7445W, 3545N 7430W, 3530N 7430W, 3530N 7445W
29A	3600N 7445W, 3600N 7412W, 3545N 7412W, 3545N 7445W
29B	3600N 7412W, 3600N 7400W, 3545N 7400W, 3545N 7412W
29C	3545N 7430W, 3545N 7412W, 3530N 7412W, 3530N 7430W
29D	3545N 7412W, 3545N 7400W, 3530N 7400W, 3530N 7412W
30A	3600N 7400W, 3600N 7345W, 3545N 7345W, 3545N 7400W
30B	3600N 7345W, 3600N 7330W, 3545N 7330W, 3545N 7345W
30C	3545N 7400W, 3545N 7345W, 3530N 7345W, 3530N 7400W
30D	3545N 7345W, 3545N 7330W, 3530N 7330W, 3530N 7345W
31A	3600N 7330W, 3600N 7315W, 3545N 7315W, 3545N 7330W
31B	3600N 7315W, 3600N 7300W, 3545N 7300W, 3545N 7315W
31C	3545N 7330W, 3545N 7315W, 3530N 7315W, 3530N 7330W
31D	3545N 7315W, 3545N 7300W, 3530N 7300W, 3530N 7315W
32A	3600N 7300W, 3600N 7240W, 3545N 7240W, 3545N 7300W
32B	3545N 7300W, 3545N 7240W, 3530N 7240W, 3530N 7300W

33	3530N 7525W, 3530N 7500W, 350845N 7500W
34A	3530N 7500W, 3530N 7445W, 3515N 7445W, 3515N 7500W
34B	3530N 7445W, 3530N 7430W, 3515N 7430W, 3515N 7445W
34C	3515N 7500W, 3515N 7445W, 345545N 7445W, 350845N 7500W
34D	3515N 7445W, 3515N 7430W, 3500N 7430W, 3500N 7445W
35A	3530N 7430W, 3530N 7412W, 3515N 7412W, 3515N 7430W
35B	3530N 7412W, 3530N 7400W, 3515N 7400W, 3515N 7412W
35C	3515N 7430W, 3515N 7412W, 3500N 7412W, 3500N 7430W
35D	3515N 7412W, 3515N 7400W, 3500N 7400W, 3500N 7412W
36A	3530N 7400W, 3530N 7345W, 3515N 7345W, 3515N 7400W
36B	3530N 7345W, 3530N 7330W, 3515N 7330W, 3515N 7345W
36C	3515N 7400W, 3515N 7345W, 3500N 7345W, 3500N 7400W
36D	3515N 7345W, 3515N 7330W, 3500N 7330W, 3500N 7345W
37A	3530N 7330W, 3530N 7315W, 3515N 7315W, 3515N 7330W
37B	3530N 7315W, 3530N 7300W, 3515N 7300W, 3515N 7315W
37C	3515N 7330W, 3515N 7315W, 3500N 7315W, 3500N 7330W
37D	3515N 7315W, 3515N 7300W, 3500N 7300W, 3500N 7315W
38A	3530N 7300W, 3530N 7240W, 3515N 7240W, 3515N 7300W
38B	3515N 7300W, 3515N 7240W, 350535N 7240W, 345216N 7300W
39	3500N 7445W, 3500N 7430W, 344230N 7430W, 345545N 7445W
40A	3500N 7430W, 3500N 7412W, 3445N 7412W, 3445N 7430W
40B	3500N 7412W, 3500N 7400W, 3445N 7400W, 3445N 7412W
40C	3445N 7430W, 3445N 7412W, 3430N 7412W, 3430N 741530W, 344230N 7430W
40D	3445N 7412W, 3445N 7400W, 3430N 7400W, 3430N 7412W
41A	3500N 7400W, 3500N 7345W, 3445N 7345W, 3445N 7400W
41B	3500N 7345W, 3500N 7330W, 3445N 7330W, 3445N 7345W
41C	3445N 7400W, 3445N 7345W, 3430N 7345W, 3430N 7400W
41D	3445N 7345W, 3445N 7330W, 343213N 7330W, 3430N 733319W, 3430N 7345W
42A	3500N 7330W, 3500N 7315W, 3445N 7315W, 3445N 7330W
42B	3500N 7315W, 3500N 7300W, 345216N 7300W, 344215N 7315W

FIGURE 2-1C

42C	3445N 7330W, 3445N 7315W, 344215N 7315W, 343213N 7330W
43	3430N 741530W, 3430N 733319W, 341404N 735704W
44A	3837N 75W, 3845N 7453W, 3845N 7445W, 3830N 7445W, 3830N 7459W then 3 NM from and parallel to the shoreline to origin
44B	3845N 7445W, 3845N 7430W, 3830N 7430W, 3830N 7445W to origin
44C	3830N 7459W, 3830N 7445W, 3815N 7445W, 3815N 750315W then 3 NM from and parallel to the shoreline to origin
44D	3830N 7445W, 3830N 7430W, 3815N 7430W, 3815N 7445W to origin
45A	3845N 7430W, 3845N 7420W, 3842N 7415W, 3830N 7415W, 3830N 7430W to origin
45B	3842N 7415W, 3833N 7400W, 3830N 7400W, 3830N 7415W to origin
45C	3830N 7430W, 3830N 7415W, 3815N 7415W, 3815N 7430W to origin
45D	3830N 7415W, 3830N 7400W, 3815N 7400W, 3815N 7415W to origin
46	3833N 7400W, 3815N 7330W, 3815N 7400W to origin
47A	3815N 7504W, 3815N 7445W, 3800N 7445W, 3800N 7511W then 3 NM from and parallel to the shoreline to origin
47B	3815N 7445W, 3815N 7430W, 3800N 7430W, 3800N 7445W to origin
48A	3815N 7430W, 3815N 7415W, 3800N 7415W, 3800N 7430W to origin
48B	3815N 7415W, 3815N 7400W, 3800N 7400W, 3800N 7415W to origin
49A	3815N 7400W, 3815N 7345W, 3800N 7345W, 3800N 7400W to origin
49B	3815N 7345W, 3815N 7330W, 3800N 7330W, 3800N 7345W to origin
50	3815N 7330W, 3800N 7305W, 3800N 7330W to origin

SURFACE 3700N 7554W, 3700N 7240W, 3655N 7240W, 3655N 7554W
FREE LANE:

FIGURE 2-1C

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AREA	
1	3450N 7615W then 3 NM from and parallel to the shoreline to 3530N 7525W, 3513N 7505W, 3440N 7604W
2	3457N 7534W, 3432N 7505W, 3413N 7532W, 3440N 7604W
3	3513N 7505W, 3450N 7439W, 3432N 7505W, 3457N 7534W
4	3432N 7505W, 3420N 7452W, 3400N 7519W, 3413N 7532W
5	3450N 7439W, 3439N 7426W, 3420N 7452W, 3432N 7505W
6	3420N 7452W, 3355N 7424W, 3336N 7452W, 3400N 7519W
7	3439N 7426W, 3414N 7357W, 3355N 7424W, 3420N 7452W
8	3450N 7615W, 3440N 7604W, 3417N 7645W, 343730N 7656W then 3 NM from and parallel to the shoreline
9	3428N 7625W, 340430N 760530W, 3349N 7630W, 3417N 7645W
10	3440N 7604W, 3420N 7541W, 340430N 760530W, 3428N 7625W
11	340430N 760530W, 334030N 754630W, 3320N 761441W, 3349N 7630W
12	3420N 7541W, 3400N 7519W, 334030N 754630W, 340430N 760530W
13	334030N 754630W, 3313N 752430W, 3250N 7557W, 3320N 761441W
14	3400N 7519W, 3336N 7452W, 3313N 752430W, 334030N 754630W
15	343730N 7656W, 3417N 7645W, 3351N 7730W, 342315N 7730W then 3 NM from and parallel to the shoreline
16	3404N 7707W, 3333N 7655W, 3310N 7731W, 3351N 7730W
17	3417N 7645W, 3349N 7630W, 3333N 7655W, 3404N 7707W
18	3333N 7655W, 3300N 7642W, 3300N 7729W, 3310N 7731W
19	3349N 7630W, 3320N 761441W, 3300N 7642W, 3333N 7655W
20	3300N 7642W, 3243N 7642W, 3243N 7725W, 3300N 7729W
21	3320N 761441W, 3250N 7557W, 3243N 760630W, 3243N 7642W, 3300N 7642W

FIGURE 2-1D. SURFACE AREA GRID COORDINATES FOR CHERRY POINT OPERATING AREA

AREA	
22	3239N 7724W, 3239N 7650W, 321230N 7650W, 3220N 7720W
23	3239N 7650W, 3239N 7612W, 3212N 7649W, 321230N 7650W
SURFACE FREE LANE:	3243N 7725W, 3243N 760630W, 3239N 7612W, 3239N 7724W

FIGURE 2-1D.

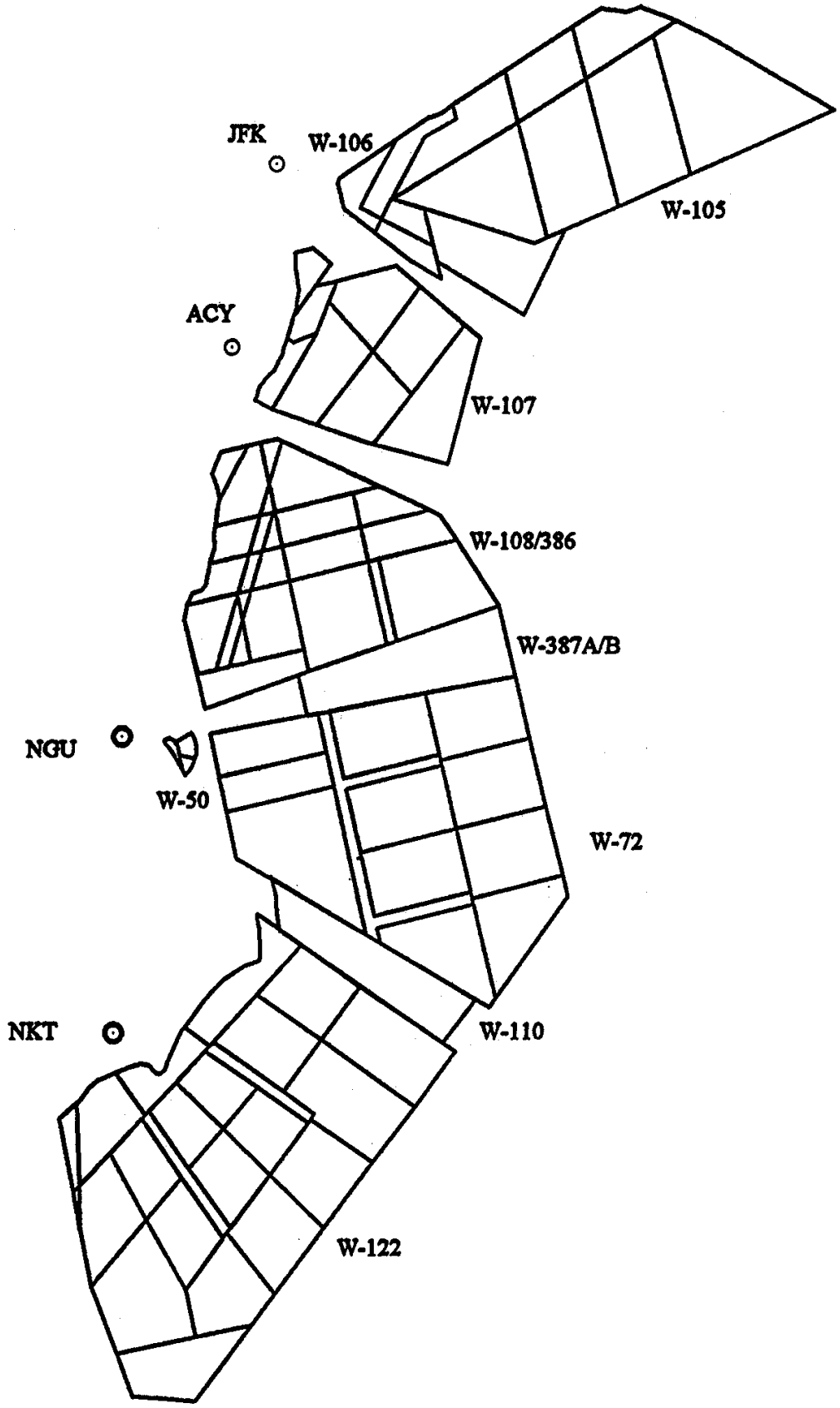

Figure 2-2. AIR AREA GRID REFERENCE SYSTEM

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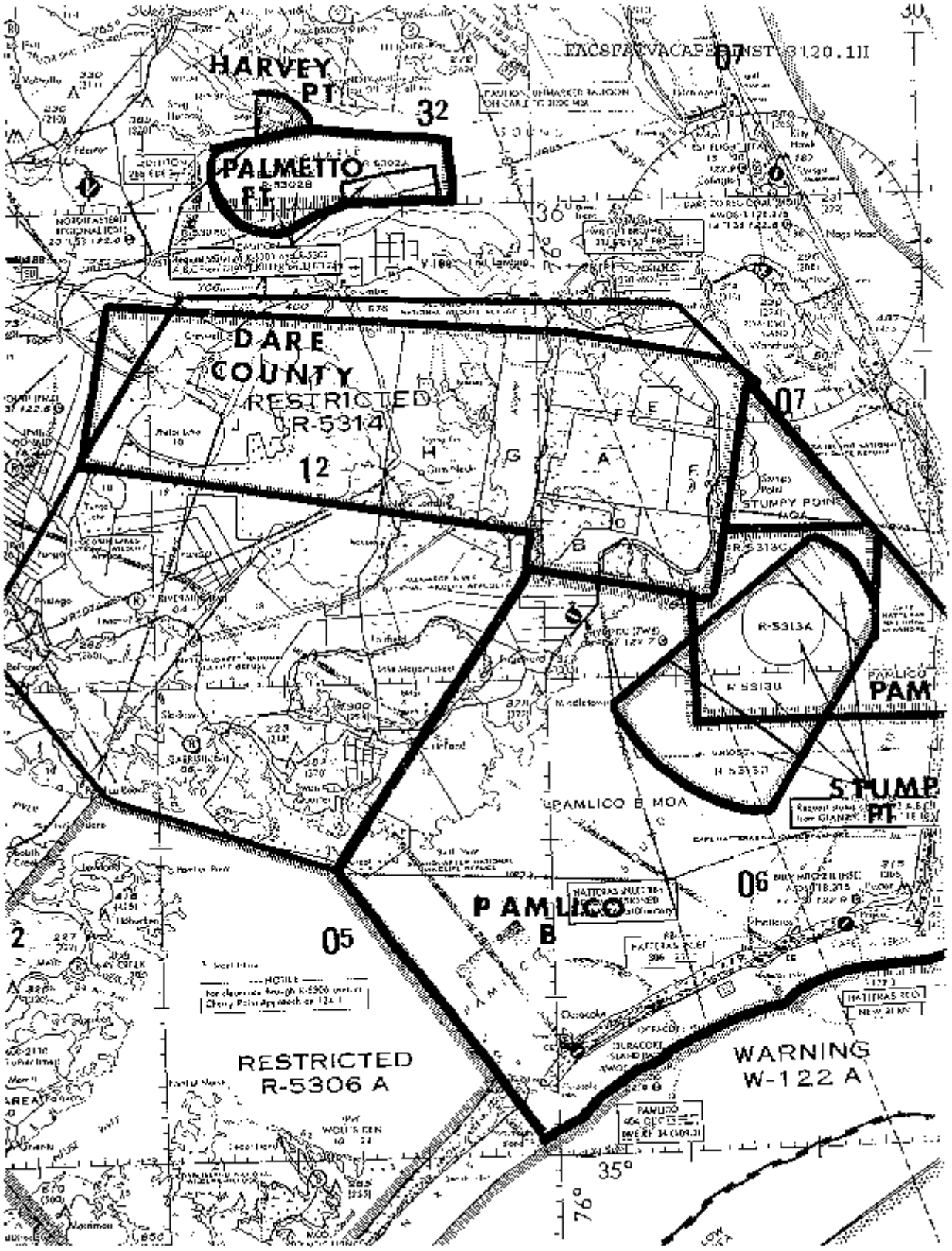

FIGURE 2-3A. NORTH CAROLINA MILITARY OPERATING AREAS (MOAs) ATCAAs AND RESTRICTED AREAS

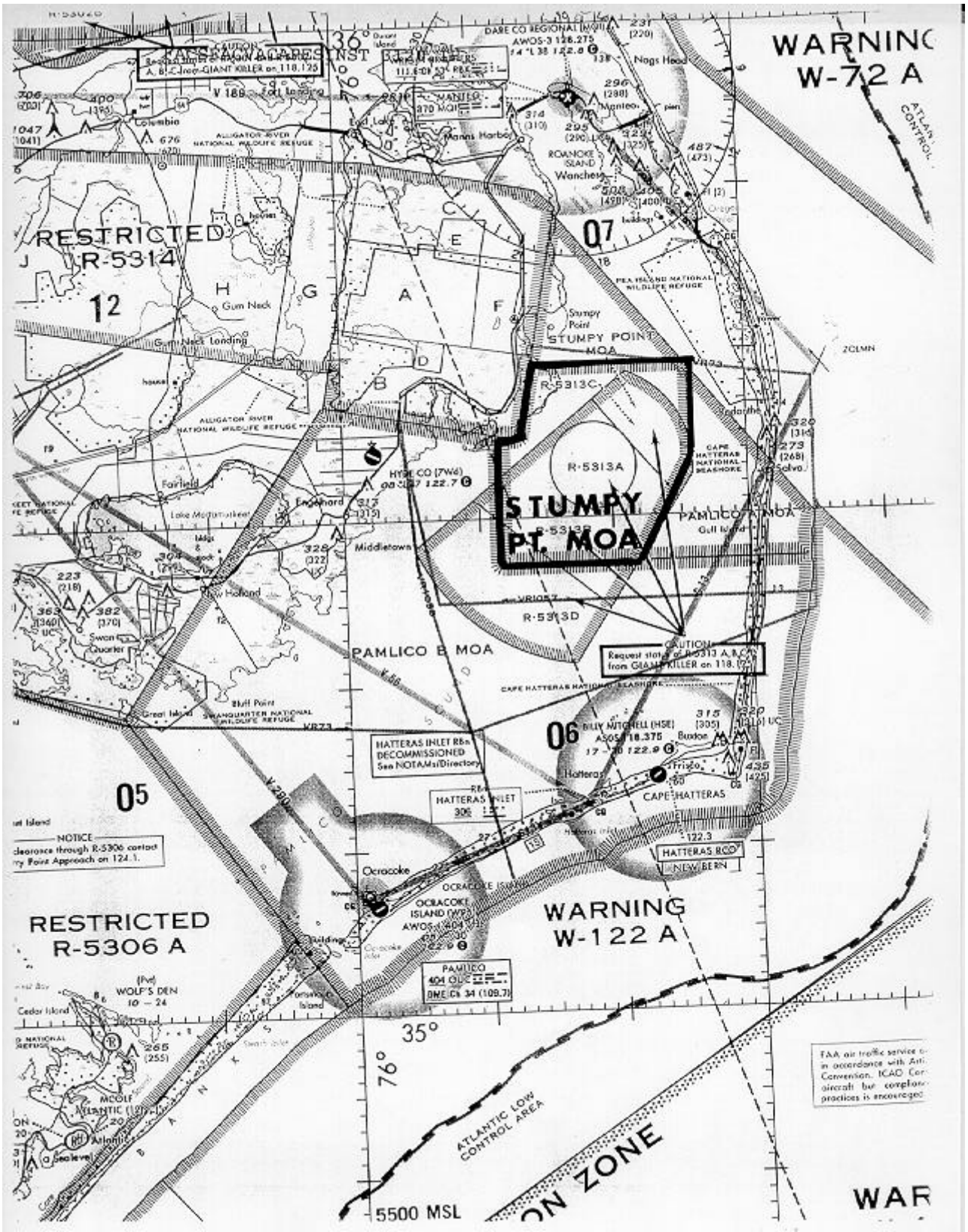

FIGURE 2-3B. STUMPY POINT MOA (SURF-7999FT)

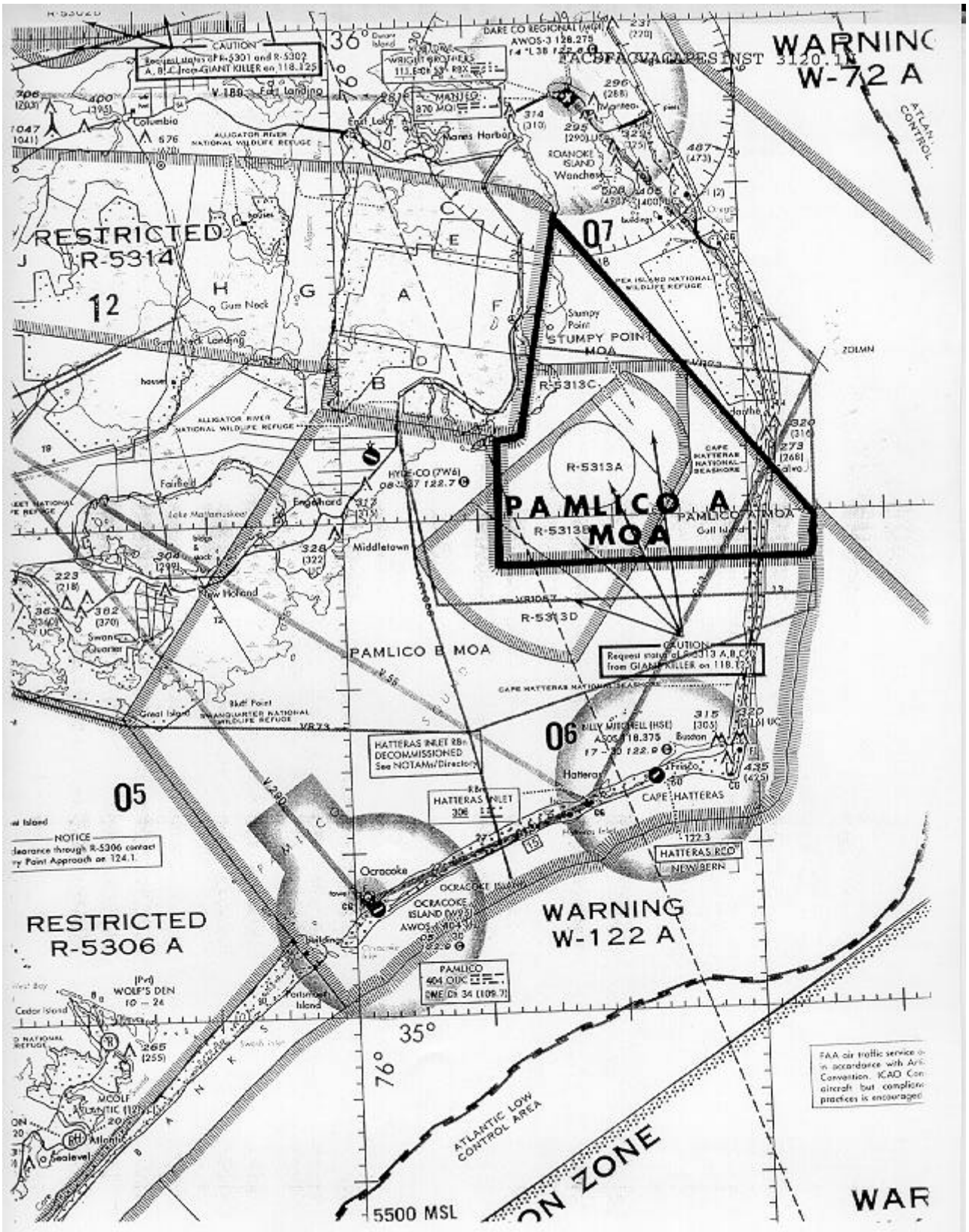

FIGURE 2-3C. PAMLICO “A” MOA (8000FT-FL180)

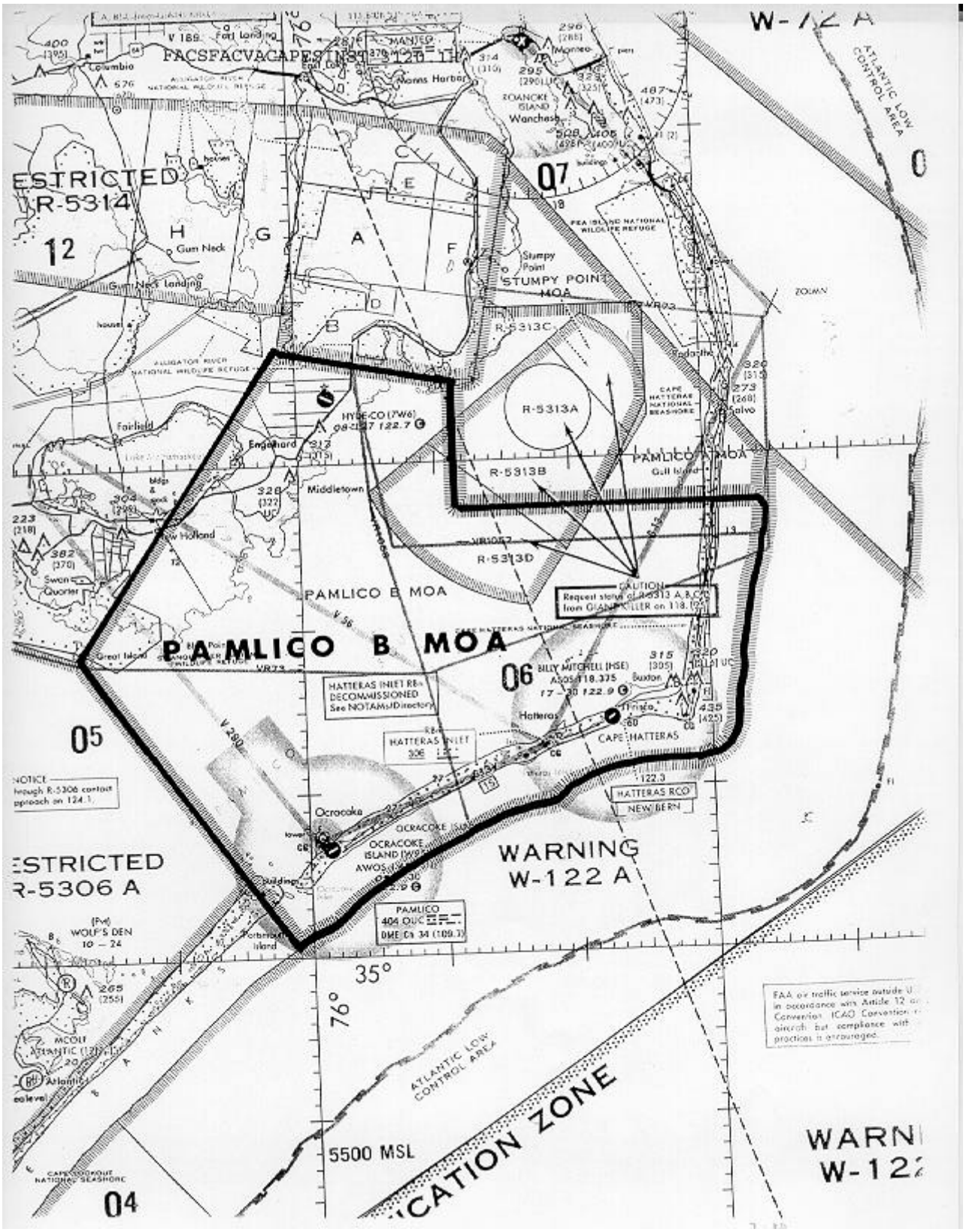

FIGURE 2-3D. PAMLICO “B” MOA (8000FT-FL180)

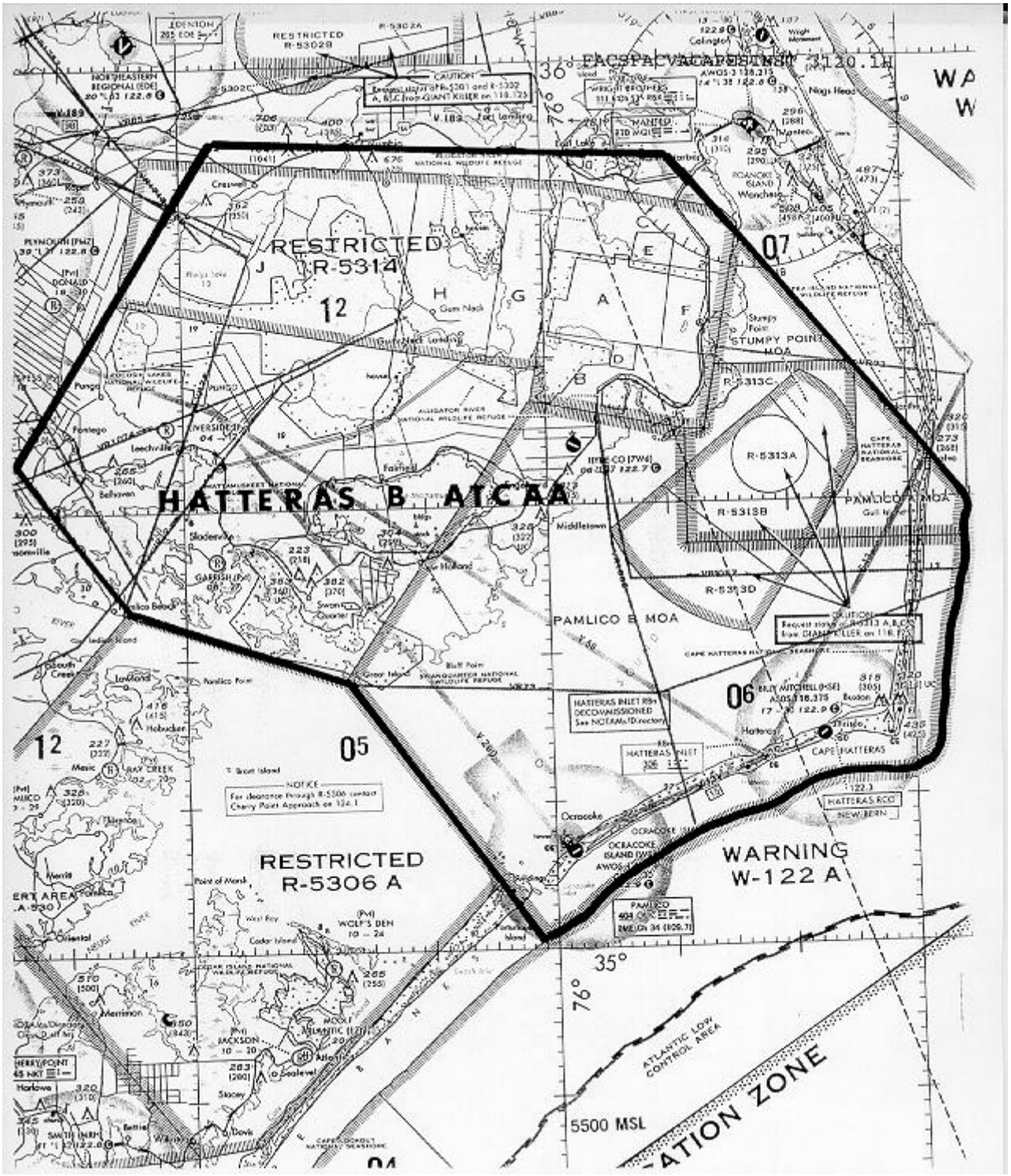

FIGURE 2-3E. HATTERAS “B” ATCAA (FL240-FL600)

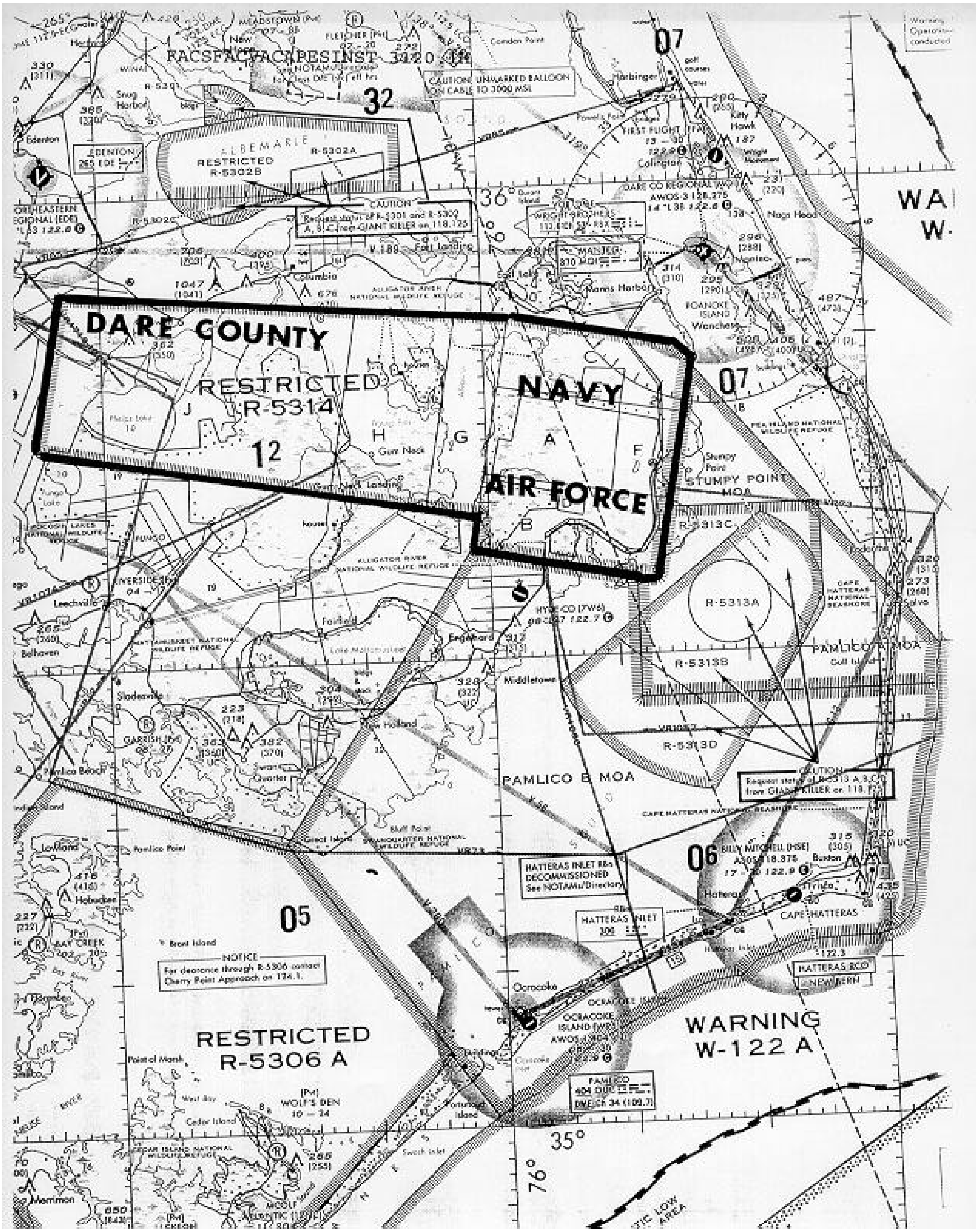

FIGURE 2-3F. DARE COUNTY BOMBING RANGE

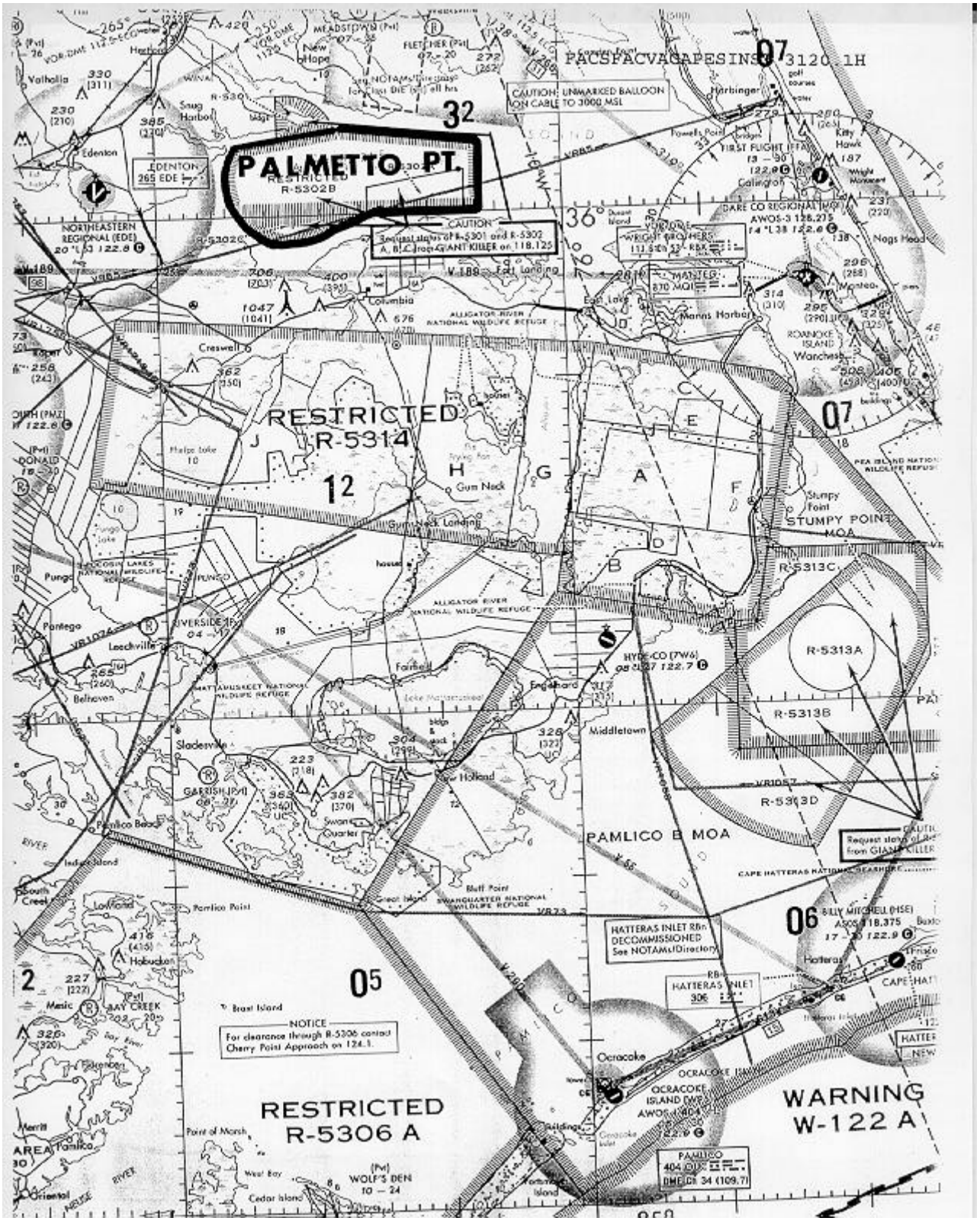

FIGURE 2-3G. PALMETTO POINT

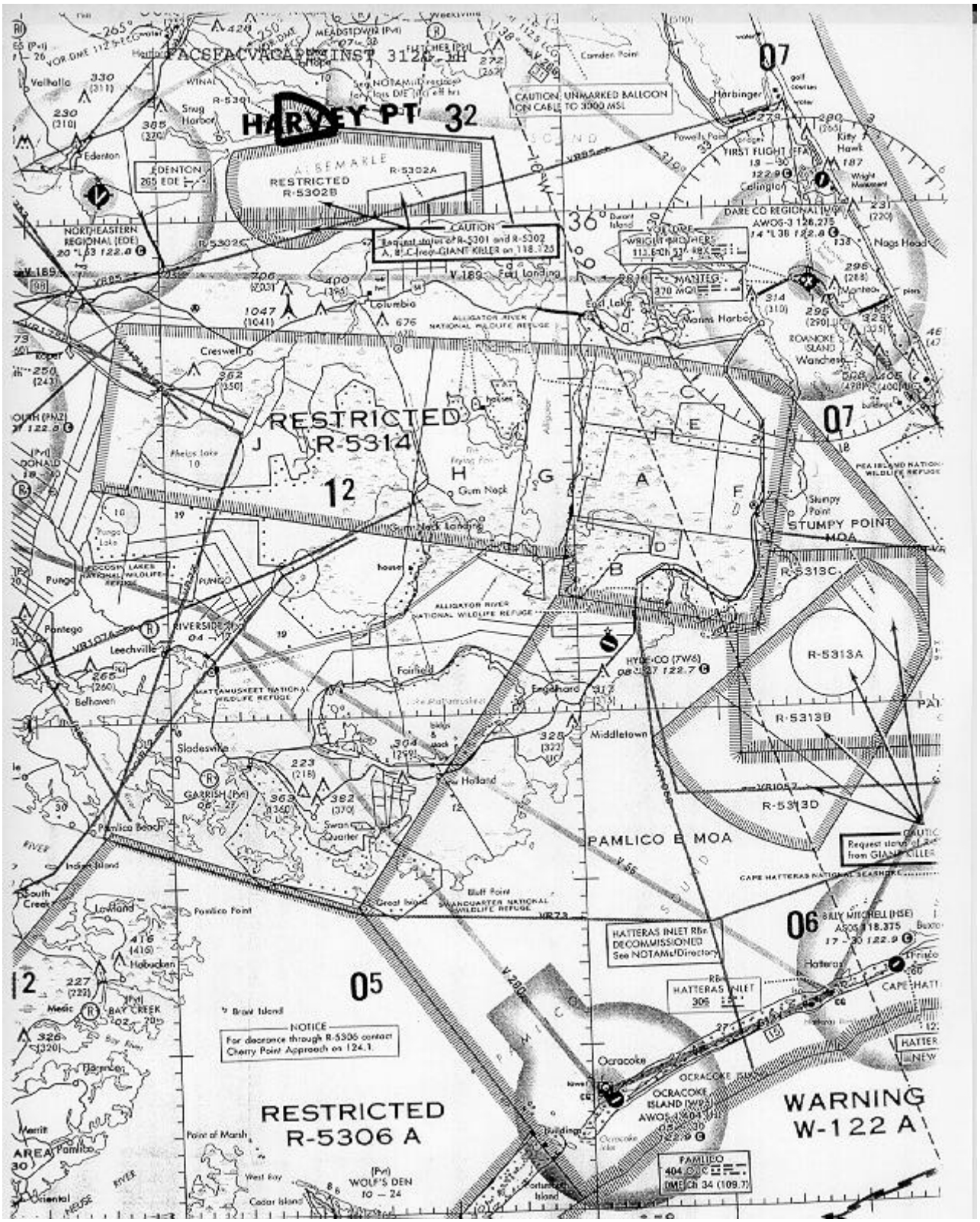

FIGURE 2-3H. HARVEY POINT

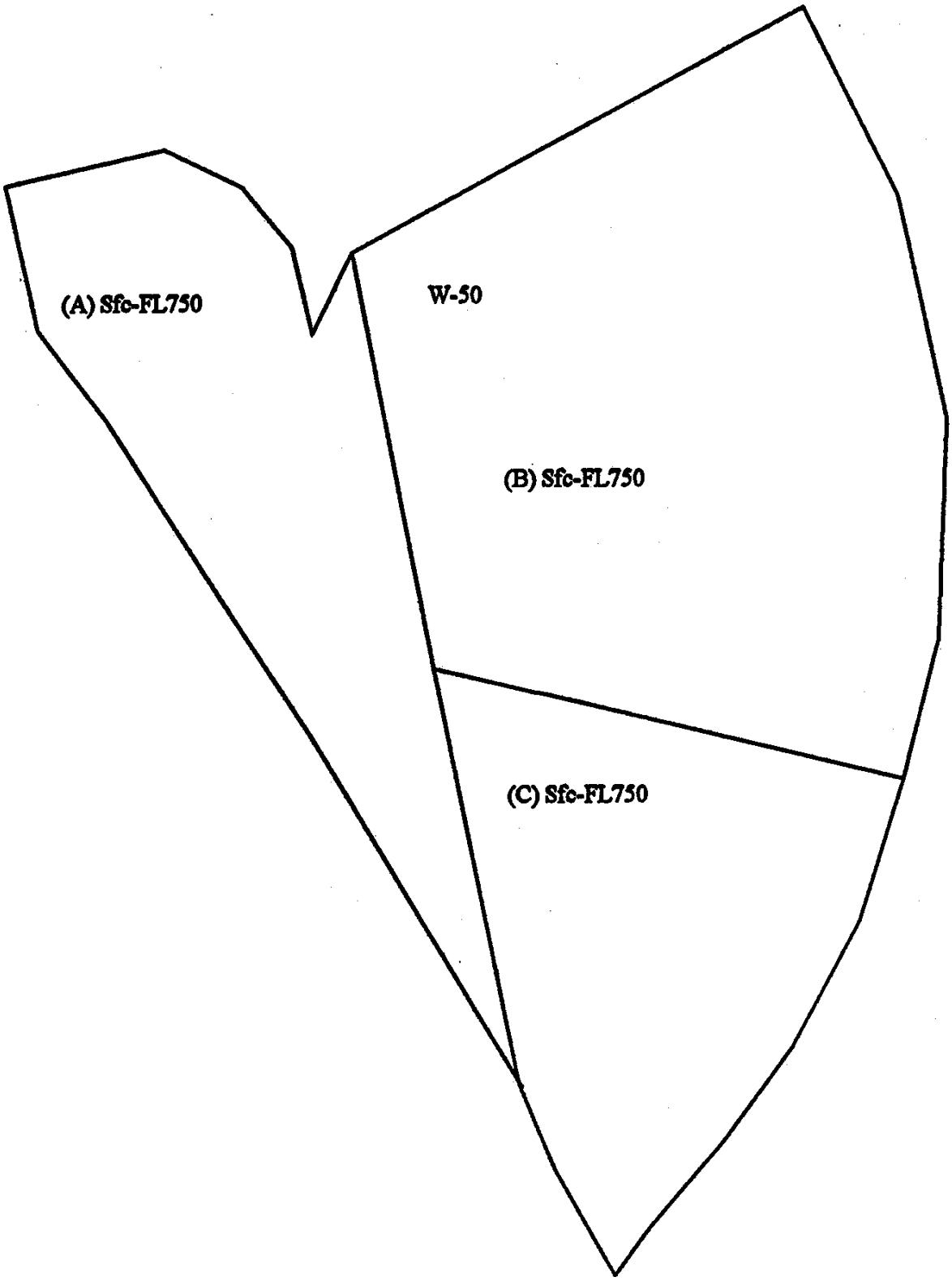

FIGURE 2-4. WARNING AREA 50 (W-50)

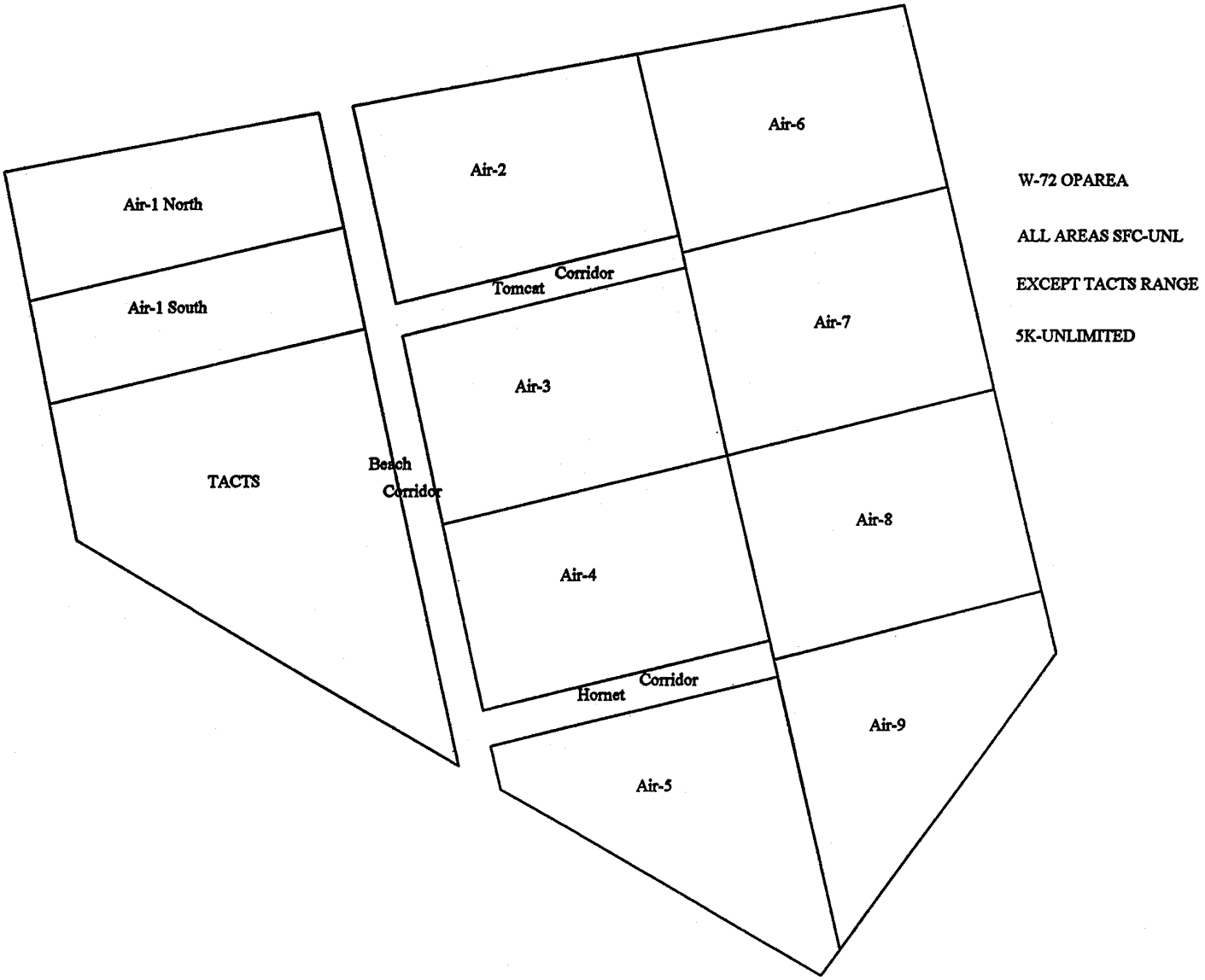

FIGURE 2-5. WARNING AREA 72 (W-72) AIR AREAS

FIGURE 2-6. WARNING AREA 387 (W-387)

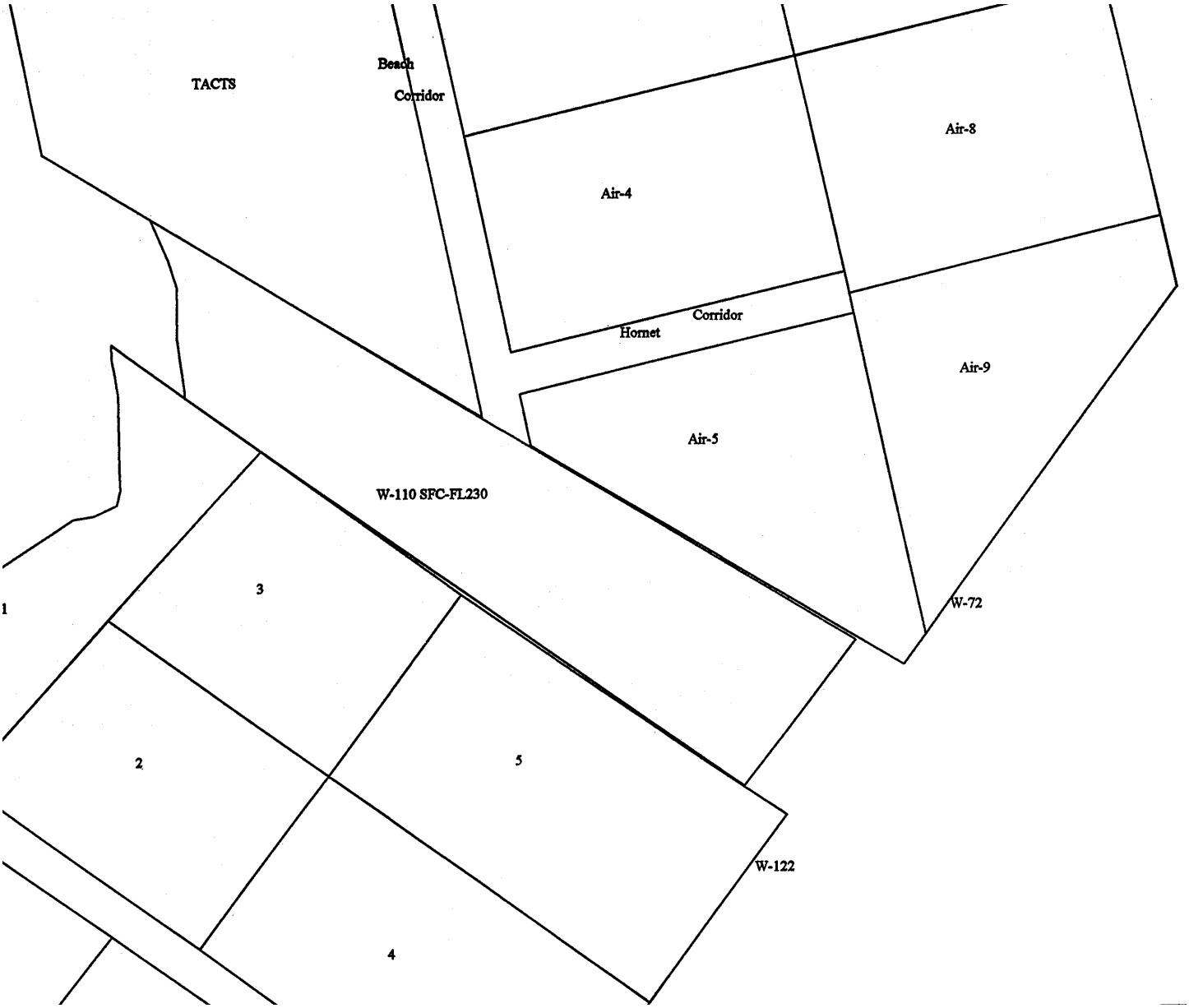

FIGURE 2-7. WARNING AREA 110 (W-110)

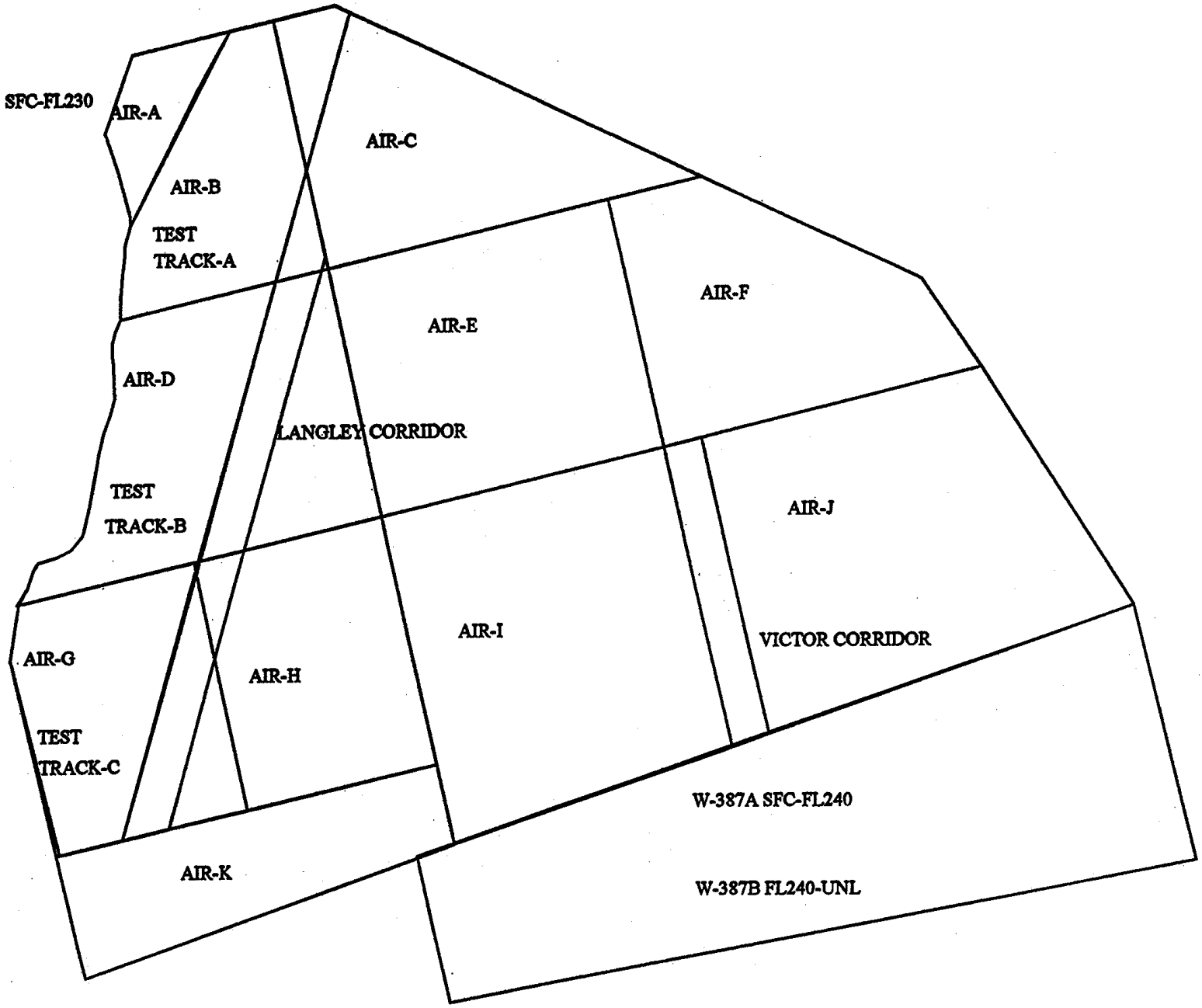

FIGURE 2-8. WARNING AREA 386/108 (W-386/108) AIR AREAS

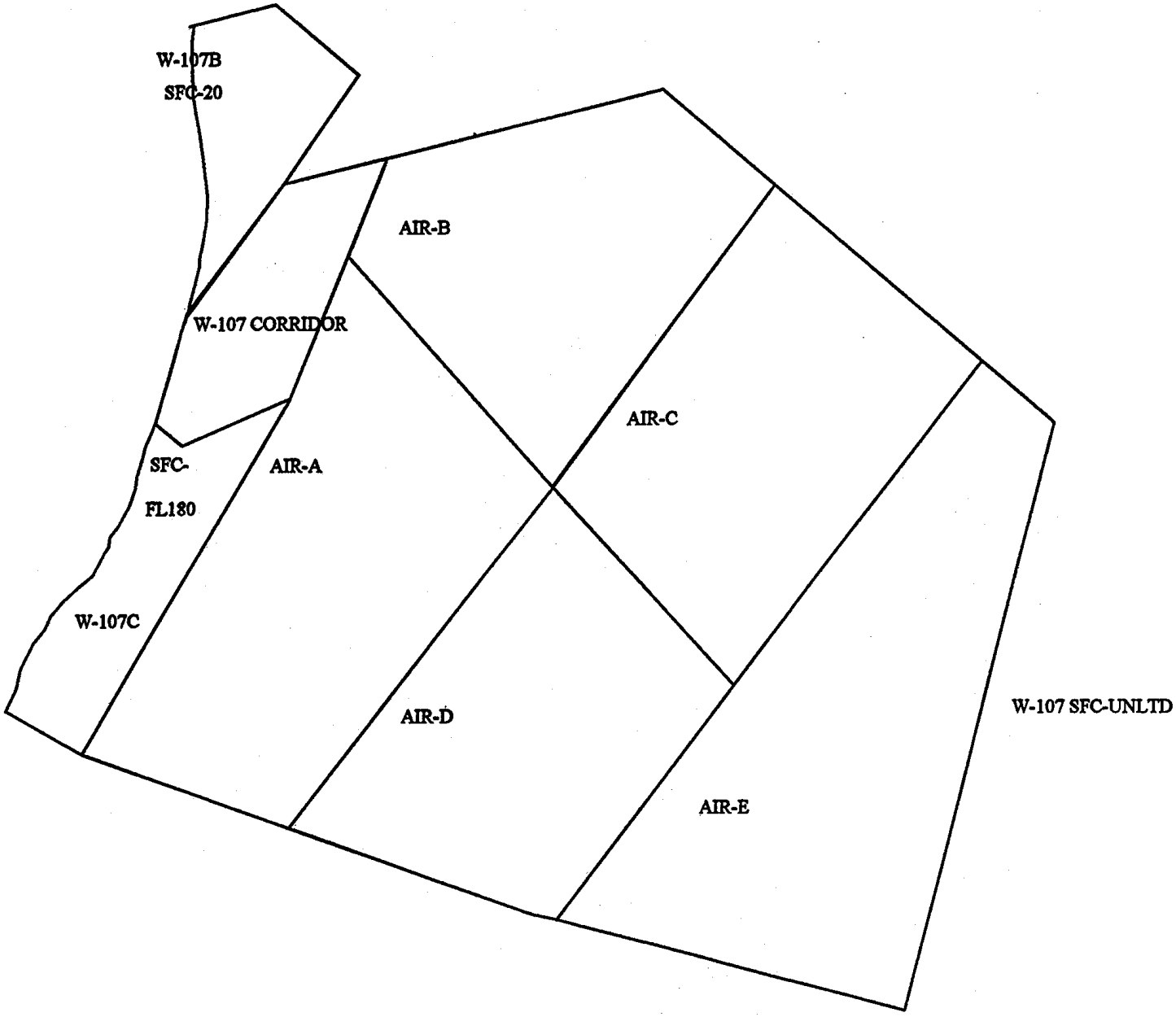

FIGURE 2-9. ATLANTIC CITY OPERATING AREA (W-107) AIR AREAS

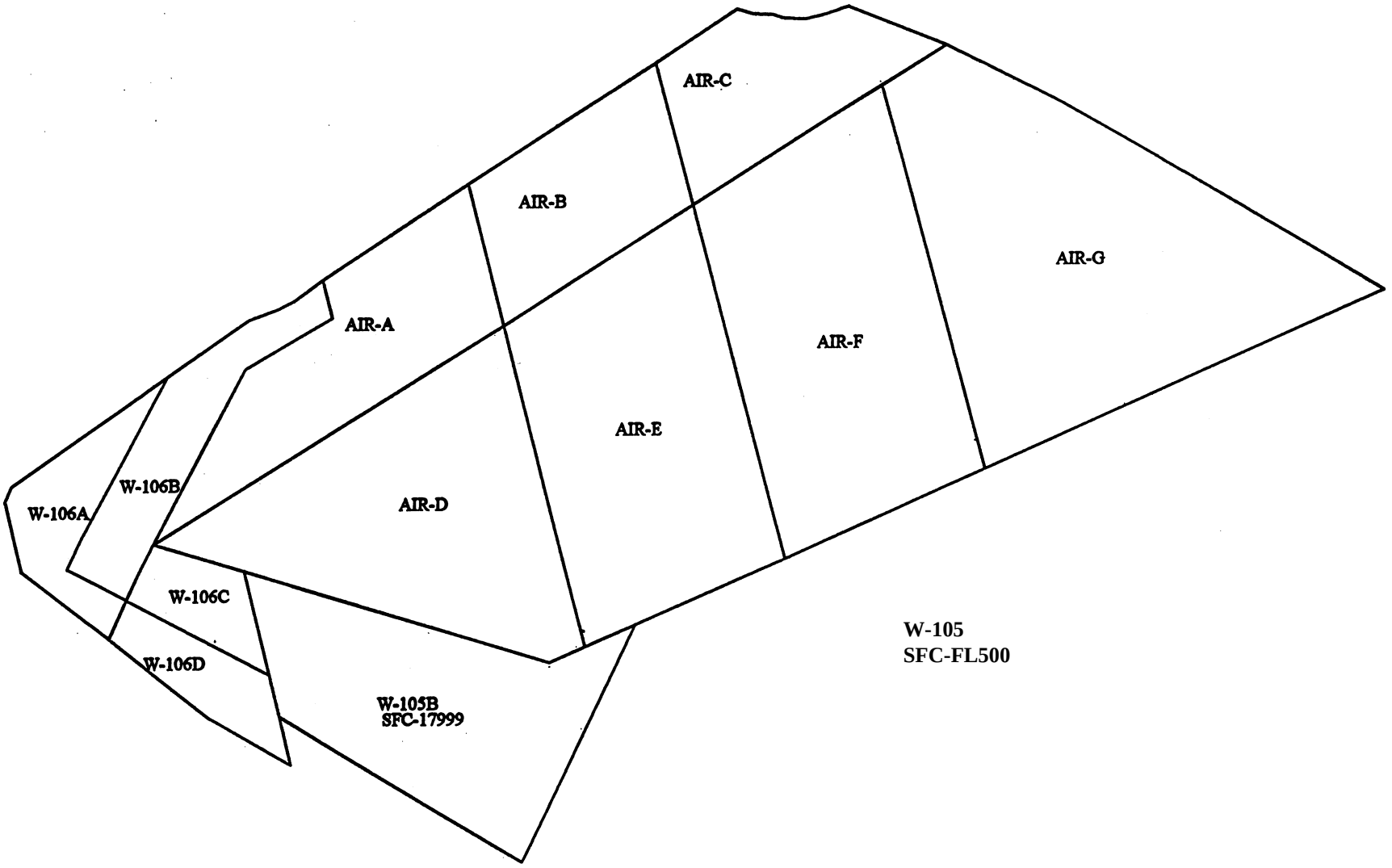

FIGURE 2-10. NARRAGANSETT BAY OPERATING AREA (W-105/106)AIR AREAS

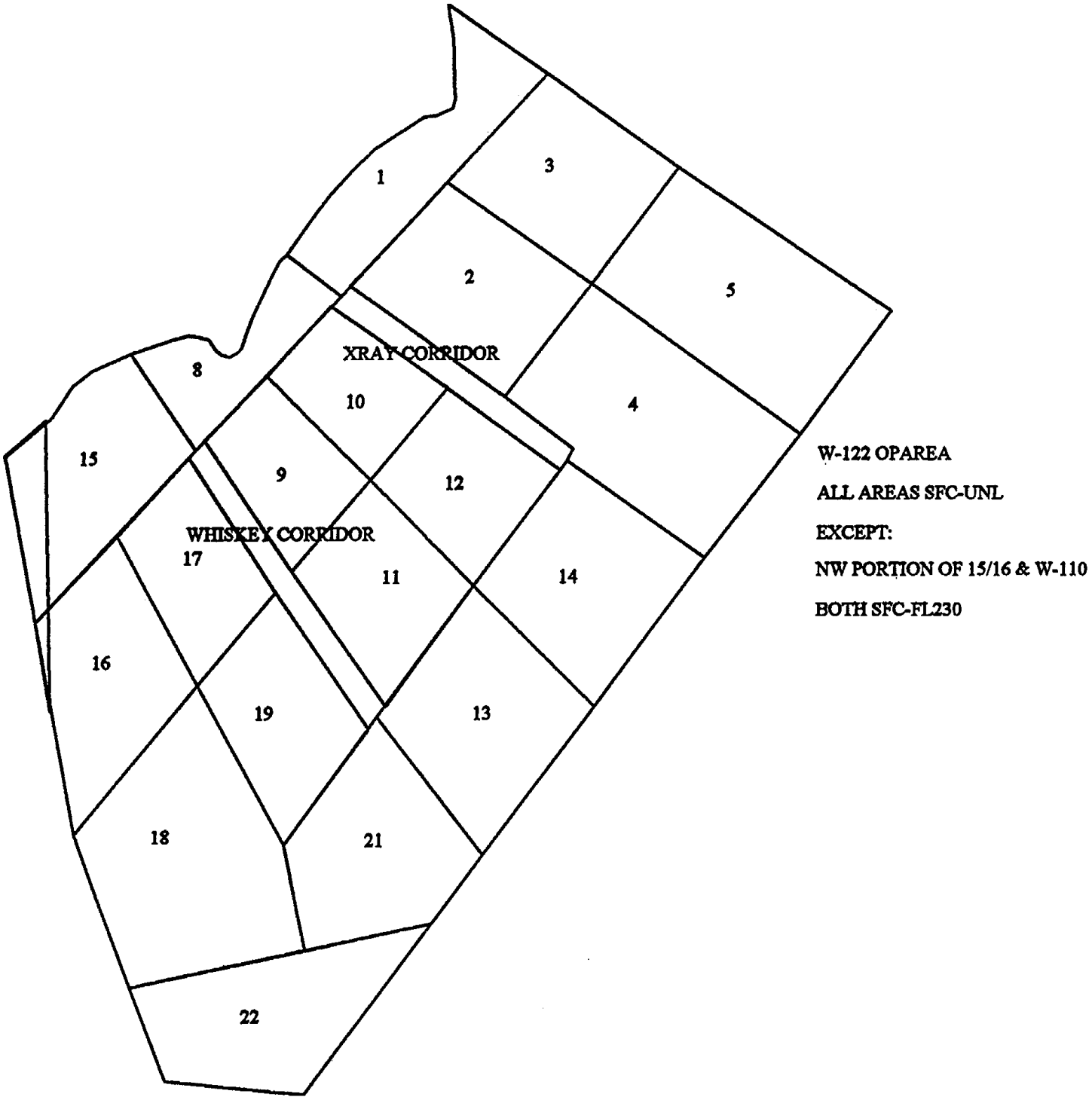

FIGURE 2-11. CHERRY POINT OPERATING AREA (W-122) AIR AREAS

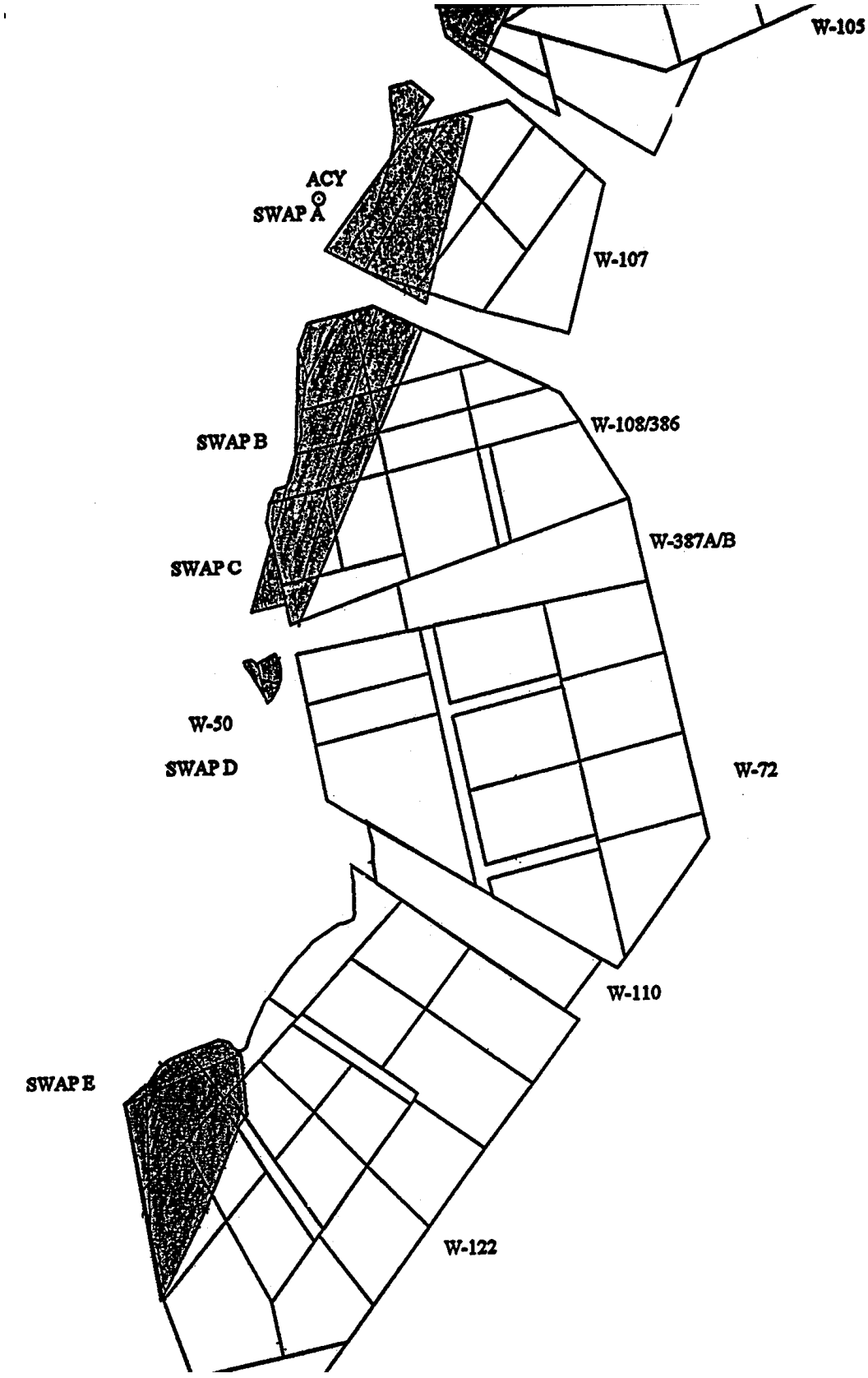
W-105
ACY
SWAP A
W-107
SWAP B
W-108/386
W-387A/B
SWAP C
W-50
SWAP D
W-72
W-110
SWAP E
W-122

FIGURE 2-12.

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CHAPTER III

REQUESTING, SCHEDULING, CANCELING, AND COORDINATING OPAREAS, SERVICES AND TARGETS

301 GENERAL. Thorough knowledge of OPAREAs, Warning Areas, targets and services is strongly recommended prior to preparation of a request to ensure accurate and expeditious processing by FACSFAC VACAPES schedulers. Chapter II contains general guidelines for utilizing air, surface and subsurface OPAREAs under the cognizance of FACSFAC VACAPES. For a detailed description of services available, refer to Appendix D.

302 REQUEST FORMAT. All requests for OPAREAs, targets and services shall be in the following format:(An example OPAREA request message is contained in Appendix E).

a. Unit's name.

b. Point of contact with phone number. (POTS/INMARSAT number if deployed).

c. Dates and times (ZULU).

d. The areas or subareas desired (see figures 2-1 through 2-12 for numbering) and altitudes/depth required.

e. Type of operation or exercise to be conducted and priority in accordance with Appendix F (see paragraph 310.1). Use a plain language description vice FXP/MTP codes.

f. Services requested.

g. Remarks (Delete if not applicable).

h. Large Area Tracking Range (LATR) data.

303 OPAREA REQUEST REQUIREMENTS. The following shall be adhered to for all requests:

a. OPORDERs, MOVEREPs, notices of intent, Variable Depth SONAR (VDS) notes, and latitude/longitude position

reports do not satisfy OPAREA request requirements. A separate OPAREA request must be sent to FACSFAC VACAPES.

b. Operations which may be hazardous to, or interfere with non-participating units, require an exclusive use clearance. Weekly clearances do not authorize hazardous activities. Clearances for concurrent/non-hazardous air, surface and subsurface operations are granted in weekly standard events and need not be requested. High priority requests for concurrent use (i.e. carrier qualifications and special operations) should be requested to ensure desired area is not assigned to another unit for an exclusive/hot event.

c. Operating requirements for depths, altitude, area size, etc., should be reviewed by the requesting unit prior to submission.

d. Operations requiring both air and surface areas shall identify both the Air Warning Areas and Surface OPAREAs desired.

e. If services are requested, the originator shall ensure an area clearance is requested for the servicing unit(s).

f. Air clearance requests shall include specific altitudes required.

g. Clearance requests for all submarine operations (surfaced or submerged) shall be addressed to the appropriate SEAC. All other submerged operations (VDS, diving, towing, etc.) shall require specific clearance from FACSFAC VACAPES and the appropriate SEAC shall be an information addressee on the original message request. The SEAC for VCOA and CPOA is COMSUBLANT. The SEAC for NBOA and ACOA is COMSUBGRU TWO.

h. **All requests shall be received by FACSFAC VACAPES no later than 0800 local on Monday of the week preceding the week which the event is requested.** Additional planning time should be allowed based on exercise priority, magnitude, and exclusivity of the area(s) requested. All requests received after the above time

shall contain justification in the remarks section (paragraph C.5 of format example in Appendix E).

i. Provide at least two names as points of contact. Provide at least two telephone numbers (for units not deployed). If at all possible, avoid using the quarterdeck number/duty desk.

j. An Officer Conducting Exercise (OCE) shall be named for all multi-unit exercises. The OCE is responsible for coordinating requests (or preferably, submitting a composite request) and promulgating the PRE-EXERCISE LOI.

304 SERVICE REQUEST REQUIREMENTS. FACSFAC VACAPES is responsible for scheduling Commercial Air Services (CAS) which provide tracking, RDT&E, towed targets, EN, ASAC and AIC exercises. Requests for other services; i.e., AUTOCAT, LINK 4A, ECM, DRONE, AEW and TOW services should be addressed to the providers designated in Appendix D. Address FACSFAC VACAPES on these requests to request OPAREAS. Due to the paucity of assets, requests for services are scheduled on a priority basis (paragraph 3 of Appendix F). Adherence to formatted requests (Appendix E) and the following notes will assist in expediting approval.

a. An OCE shall be designated with the responsibilities outlined in paragraph 303.j.

b. For efficient coordination of assets, submit requests at least two weeks prior to intended use.

c. Indicate the amount of time desired for each service event; i.e., 1.5 hours. To ensure the maximum probability of obtaining services, provide specific times. Indicate flexibility limits in all respects in the "remarks" section of the request. To maximize use of aircraft on station time, long range tracking exercises should be accomplished while aircraft is enroute to the event.

d. Ensure all surface OPAREAS/Warning Areas required by the servicing unit are requested if in addition to

those required by the requesting unit. Units requesting aircraft services (i.e. for a long range track exercise) are responsible for requesting and obtaining the required airspace. Service aircraft are authorized to operate only in the area assigned for the event.

e. Back-up events are not normally scheduled for services with the exception of priority missile exercises, Board of Inspection and Survey (INSURV) and Combat System Ship Qualification Trials (CSSQT).

f. Any ECM/ECCM activity conducted within a FACSFAC VACAPES Restricted, Danger or Warning Area must be in accordance with Tab B to Appendix 12 of Annex K to CINCLANTFLT OPORDER 2000. Submission of small scale ECM notification must also be in accordance with OPNAVINST 3430.9(series). Frequencies must be obtained with lead times noted in CJCSM 3212.2(series). Questions should be directed to the Mid-Atlantic Area Frequency Coordinator Office at DSN 326-1194/1532 or Comm. (301) 863-1194/1532.

304.1 AIRCRAFT SERVICES. Aircraft services are defined as aircraft flights conducted for the primary purpose of training an activity other than the unit providing the service. Commercial contract services scheduled by FACSFAC VACAPES satisfy most routine tracking requests. Where special equipment, performance, or techniques are required, include this information in the "remarks" section of the services request. Refer to Appendix D for amplifying information on aircraft services. In all cases communication procedures delineated in paragraph 103.5 shall be followed while controlling service aircraft. Adhere to the following guidelines when requesting aircraft services from FACSFAC VACAPES.

a. FACSFAC VACAPES is the sole scheduler of Lear and prop aircraft for the East Coast, Puerto Rico and the Gulf of Mexico. FACSFAC VACAPES shall be an action addressee on all requests for Lear aircraft regardless of scheduling facility (i.e. FACSFAC JACKSONVILLE, FACSFAC PENSACOLA). For OPAREA clearance for exercises involving Lear aircraft, the appropriate scheduling agency as listed in CINCLANTFLTINST 3120.26(Series) must also be an action addressee.

b. Fleet tactical aircraft are available on a limited basis to fulfill requests for which Lear jet aircraft may be unsuitable. Commensurate with OPTAR funding, training requirements, and/or operational commitments, fleet squadrons may occasionally be tasked by higher authority to provide these services. COMNAVAIRLANT and FACSFAC VACAPES shall be action addressees on all requests for fleet aircraft. Requests for E-2, F-14, or F/A-18 aircraft should normally be requested via the CINCLANTFLT Quarterly Scheduling Conference. Emergent requests for aircraft services should arrive at COMNAVAIRLANT with as much lead time as possible, but no less than three weeks prior to the requested date to allow sufficient time for coordination.

c. Address requests for P-3 patrol aircraft and required airspace to CINCLANTFLT and FACSFAC VACAPES. Include COMNAVAIRLANT, COMPATWINGSLANT and CTF-26 as info addressees.

d. Requests for ECM/ECCM aircraft shall be addressed to FLTINFOWARCEN and FACSFAC VACAPES in accordance with COMAEWINGLANTINST C3120.1(series) which contains policy and requesting procedures.

e. Requests for photo services and imaging platforms inside a Warning Area shall be addressed to FACSFAC VACAPES and FLTIMAGCOMLANT and info COMHELTACWING ONE and NAS OCEANA. For services in the vicinity of Chesapeake Bay Light, Naval Station Norfolk and NAS Norfolk. Photo service requests should be addressed to COMNAVAIRLANT, appropriate TYCOM, FLTIMAGCOMLANT and info COMHELTACWINGLANT and NAS Oceana. Helicopter services for routine photo services are normally provided on a not-to-interfere basis as a secondary mission.

304.2 AERIAL TARGET SERVICES. FACSFAC VACAPES is the scheduling coordinator for all CONUS Atlantic Fleet BQM-74, TDU and Hayes Target Services. To request target services, utilize the format outlined in Appendix E and reference (e). Further information on aerial targets is contained Appendix D.

a. BQM services: FACSFAC VACAPES, COMNAVAIRLANT and COMHELTACWINGLANT shall be action addressees with FLECOMPRON SIX as an info addressee. Reference (e) contains further quidance on requesting aerial targets services

b. Hayes Target/Towed Dummy Units (TDU) services are requested directly through FACSFAC VACAPES.

304.3 SURFACE TARGET SERVICES. FACSFAC VACAPES is the sole scheduling coordinator for CONUS Atlantic Fleet SEPTAR and towed target services. To request target services, utilize the format outlined in Appendix E. Surface target information is contained in Appendix D.

a. SEPTAR requests shall be addressed to FACSFAC VACAPES, COMNAVAIRLANT and FLECOMPRON SIX. Reference (e) contains further guidance on requesting, utilization and expenditures of surface targets.

b. Units requiring tow services for sled towing should contact COMNAVSURFLANT NORFOLK VA//N32/N33// by message or phone, or refer to CINCLANTFLT employment schedule to determine availability of tow services. SURFLANT and COMLOGGRU 2 shall be action addressees on all requests to help coordinate service unit assignments. All units should be aware that availability of tow units is decided by CINCLANTFLT.

305 TARGET RANGE REQUEST REQUIREMENTS

a. FACSFAC VACAPES Target Scheduler, commercial (757)433-1222/1221 (DSN prefix 433) is responsible for scheduling the Navy portion of Navy Dare County Bombing Range (R-5314A-H,J), Stumpy Point Bombing Range (R-5313A, B, C, D), Palmetto Point Bombing Range (R-5302A, B, C) and Harvey Point (R-5301).

(1) Units shall provide FACSFAC VACAPES with their requests, either via telephone, message, fax, or weekly scheduling conference, a minimum of 6 days prior to the Monday of the week concerned. Any special considerations should be included with the request, otherwise all requests will receive equal priority. Navy Dare County Bombing Range (R-5314A-H,J) priorities are determined by NAS Oceana Commanding Officer.

(2) FACSFAC VACAPES will confirm requests the Wednesday prior to the Monday of the week concerned.

(3) Range periods will normally be 30 minutes in length for two aircraft flights and 45 minutes for four aircraft flights. Requests for non-standard lengths will be considered.

(4) After publication of the weekly schedule, open range periods will be allocated on a first come first serve basis, unless special mission requirements dictate otherwise.

(5) Target periods must be canceled by contacting the FACSFAC Target Scheduler (0730-1600 local MON-FRI) or Area Coordinator after normal working hours. Requests for areas normally exceed availability, therefore, it is important that cancellations are made as soon as possible. Only units scheduled for a particular period may cancel that period. Cancellations must be made prior to FACSFAC rescheduling that period for another unit.

b. 4OSS/OSOF Wing Scheduling, commercial (919) 736-6565/ 6251 (DSN 888), is responsible for scheduling the Air Force portion of the Dare County Bombing Range (R-5314A-H, J). Requests are to be submitted in accordance with SJAFB supplement 1 AFR 5-46.

306 HATTERAS ATCAA AND PAMLICO A/B MOA REQUEST REQUIREMENTS. The following requirements shall be adhered to when scheduling the Hatteras ATCAA and the Pamlico A and B Military Operations Areas:

a. Requests shall be directed by message or telephone to FACSFAC VACAPES Schedules, Comm. (757) 433-1222 or DSN 433-1222. Requests must reach FACSFAC VACAPES no later than 1600 local on Tuesday of the week prior to the week during which the airspace is desired. Requests may be incorporated into combined requests for area clearances, services, etc.

b. Real-time requests, modifications, and cancellations shall be directed to the FACSFAC VACAPES Target Coordinator, DSN 433-1222, Comm. (757) 433-1222.

c. FACSFAC VACAPES does not provide event confirmation until publication of the Target/Hatteras schedule. The Target/Hatteras schedule is transmitted on Wednesday. When the normal transmission day is a holiday, the schedule will be transmitted on Tuesday. The Target/Hatteras schedule message date-time group is 1915Z.

307 CHANGING REQUESTS. FACSFAC VACAPES will accept all changes to requests for OPAREAS and services, however, as changes involving services or exclusive use of OPAREAS affect multiple users, FACSFAC VACAPES' ability to accommodate these changes will depend upon sufficient notice for proper coordination. Advance telephone liaison to notify FACSFAC VACAPES of requested changes is strongly encouraged. All changes, regardless of whether or not telephone liaison has been made, require message verification. The format for a change request message is the same as that for the original request except the subject line shall indicate the message request is a change and shall reference the Date-Time-Group(DTG) of the original request message. If the FACSFAC VACAPES OPSKED has already been published, change requests must reference the OPSKED DTG and each effected event number.

308 CANCELING REQUESTS. Requests for areas and services normally exceed availability. Therefore, it is important that cancellations are made as soon as it is determined the need for requested areas and services no longer exists. Immediate cancellation by phone (for non-deployed units) followed by a cancellation message is required. Use IMMEDIATE precedence as necessary.

Cancellations may either cancel the original request message or portions thereof. Reason(s) for canceling shall be indicated. If the FACSFAC VACAPES OPSKED has already been published, cancellations shall reference the OPSKED DTG and each affected event number. In all cases, addressees shall be FACSFAC VACAPES, the servicing unit(s) and any participating units. INFO addressees shall include Type or Operational Commanders as appropriate. It is the user's responsibility to inform all participants of any cancellations.

309 ACTIVATING BACK-UP EVENTS. Due to the paucity of assets, back-up events are not normally scheduled. When they are scheduled for certain exercises, back-up events are automatically canceled unless activation is specifically requested. Back-up events may be activated by telephone or radio communication nets. A follow-up message is required.

310 SCHEDULING. FACSFAC VACAPES takes all requests for exercises, areas, services and based upon the availability of assets, structures a coordinated schedule to maximize request fills for all users. The scheduling process is outlined below.

a. FACSFAC VACAPES schedulers review requests for possible problems or conflicts with existing higher priority requests. When conflicts exist, requesters are notified (when practical) and alternatives are discussed. When no conflict exists, the request is catalogued with other requests for the week(s) involved. For large scale exercises, notification of tentative approval may be given for planning purposes only. **FACSFAC VACAPES will not give final confirmation of a clearance until publication of the OPSKED.** Clearances for planning purposes are subject to alteration to reflect Fleet priorities. Such a clearance indicates there were no conflicting priority exercises on file.

b. On Monday of the week prior to the week an event is to be scheduled, the scheduler compiles requests for services based on priorities (see paragraph 310.1) and sorts OPAREA requests based on exercise requirements and priorities. Aligning and coordinating service requests

into the schedule is an ongoing process until the publication of the OPSKED. FACSFAC VACAPES' ability to make major changes decreases as the publication deadline approaches. The OPSKED should be read thoroughly immediately upon receipt. Instructions for use are contained in each OPSKED. Check for clearances, services and restrictive notes. Restrictive notes for hazardous/exclusive operations are only given to specific events when these events overlap. Users must review the OPSKEDs and subsequent updates in order to avoid conflict with hazardous operations. Altitude/depth assignments are located in parenthesis after "air or surface area" of the event. If none is assigned, refer to Appendix J. Questions should be immediately brought to the attention of FACSFAC VACAPES via telephone, HF communications net, or message.

c. The OPSKED for all FACSFAC VACAPES OPAREAS is transmitted on Wednesday. When the transmittal day falls on a holiday, the OPSKED is normally transmitted the previous day. The OPSKED is a multi-part message starting with DTG's 2000Z and 2001Z.

d. Requests after publication of the OPSKED are considered an addition. Normally FACSFAC VACAPES will make such changes if they do not adversely impact other scheduled events. Additions, changes and cancellations will be published in change messages to the OPSKED. These messages will be numbered sequentially, i.e. FACSFAC VACAPES OPSKED XX-YY Change One (1).//

310.1 SCHEDULING PRIORITIES. Scheduling priorities for areas and services under the cognizance of FACSFAC VACAPES are derived from TAB A to Appendix 26 to Annex C of CINCLANTFLT OPORDER 2000-XX. Appendix F of this manual provides an integrated list of scheduling priorities. This priority system is used for initial scheduling purposes only. Any conflict between two or more requests of the same priority that cannot be resolved by FACSFAC VACAPES will be referred to CINCLANTFLT for resolution. Once these priorities have been applied and the schedule has been published, changes or additions are normally only approved on a not-to-interfere basis.

311 RESCHEDULING PROCEDURES. Rescheduled or add-on events will depend upon sufficient notice to FACSFAC schedulers. For exclusive use of unusually large areas or for hazardous exercises, the minimum notice required is **72 hours**. This is required for FACSFAC VACAPES to issue NOTMARS and NOTAMS (if outside warning areas) concerning such exercises. In all cases, as much notice as possible is strongly recommended to allow FACSFAC VACAPES time to effectively coordinate the event. Advance liaison via telephone or HF coordination net is requested in addition to the formal message request.

312 EVENT COORDINATION. To ensure optimum utilization of scheduled assets, the coordination procedures listed below have been established. Adherence to these procedures should prevent loss or degration of services requested.

a. Letters of Instruction (LOI). An LOI is required for all missile exercises. Refer to Chapter IV, paragraph 405, and Appendix G for details and format.

b. Pre-exercise (PRE-EX) Messages. Units receiving clearance for events involving services from units not embarked or in company shall transmit a PRE-EX message to be received by the servicing unit and FACSFAC VACAPES not less than 24 hours prior to exercise commencement. Units with a standing LOA with a servicing unit do not require a PRE-EX for exercises covered by the LOA. All participating/servicing units must be action addressees. The pre-exercise message shall be PRIORITY or IMMEDIATE precedence. FACSFAC VACAPES shall be an ACTION addressee on any PRE-EX involving civilian contract services and shall assume responsibility for passing the information on to the contractor’s representative. The message need not repeat the information contained in the OPSKED, but shall reference the FACSFAC VACAPES OPSKED DTG and event number(s) from the appropriate OPSKEDS (e.g., VACAPES, JAX) plus provide any appropriate amplifying data. Pre-exercise messages are not required when a face-to-face briefing is held with all exercise participants including a representative from FACSFAC VACAPES.

c. The following format shall be used for PRE-EX messages for events involving aircraft services:

FM REQUESTING UNIT

TO PROVIDER OF SERVICES (FACSFAC VACAPES FOR CURRENT CAS CONTRACTOR)

INFO COMFITWING ONE OCEANA VA (FOR VF AIRCRAFT SERVICES ONLY)
OTHER UNITS INVOLVED ADD APPROPRIATE ADDRESSEES

BT
CLASSIFICATION //SSIC//

MSGID/UNIT NAME/MONTH//
SUBJ/PRE-EX MSG EVT (APPROPRIATE OPSKED EVENT NUMBERS)//
REF/A/RMG/FACSFAC VACAPES OCEANA VA/(OPSKED DTG)//
REF/B/RMG/FACSFAC VACAPES OCEANA VA/(OPSKED DTG)//
RMKS/

1. IAW REFS A AND B, PRE-EX INFO AS FOL:
A. AMSH 1707 SERIES OR JANAP 119 CALL SIGN
B. TACAN CHANNEL AND IDENTIFIER (IF APPLICABLE)//
C. MISSION PROFILES(S)
D. RDVU (LAT/LONG)
E. FREQS
F. LOST COMM. PROCEDURES
G. DATA LINK FREQ/ADDRESS (IF APPLICABLE)//

d. Command and Control Warfare (C2W0 PRE-EXS). FLTINFOWARCEN NORFOLK VA //N3// coordinates all C2W Commercial Air Services and DOD Electronic Warfare aircraft. PRE-EXS for these events are usually case specific. Users should contact FIWC reps at (757) 417-4061, DSN Prefix 537 for exact information to include in a C2W PRE-EX. PRE-EXS should be sent action to FLTINFOWARCEN Norfolk VA//N321// and action to FACSFAC VACAPES OCEANA//33// if commercial Air Services are involved or info FACSFAC VACAPES if DOD aircraft are utilized.

NOTE: PRE-EXs are required 24 hours prior to the event to facilitate equipment adjustment and pilot brief.

e. Failure to provide a timely PRE-EX message in the proper format may result in loss of requested services.

313 AIRCRAFT CARRIER/LHA/LPH/LHD AIRSPACE COORDINATION MEETINGS. In accordance with COMNAVAIRLANTINST 3100.1 (series), FACSFAC VACAPES shall conduct an Airspace Coordination Planning Conference prior to each at-sea period that shall involve air operations within FACSFAC VACAPES or FAA ARTCC airspace. This conference will normally be held the Monday or Tuesday of the week proceeding the underway date. Representatives from the following activities should attend planning conferences if the operations impact their area of responsibility:

a. TRACON/RATCF

b. Local ATREPs or NAVLOS

c. Battle Group Staff Air Operations

d. CV/LHA/LPH/LHD Operations/Air Operations/Combat Direction Center/EMO/NAV/CCAO/HDC

e. Carrier Air Wing/Squadron Operations

f. Fleet Replacement Training Squadrons

g. Functional Wing

h. COMNAVAIRLANT

i. Ship’s Navigator or Assistant Navigator

Certain members of the Airspace Coordination Conference may be omitted if the impact or air operations is small and concurrence is obtained from cognizant officials.

314 REQUESTS FOR REMOTELY PILOTED VEHICLE (RPV) OPERATIONS. RPV services are available from FLECOMPRON SIX at (757) 444-4575. All requests for services should include FACSFAC VACAPES as an Info addee.

CHAPTER IV

MISSILE EXERCISE PROCEDURES

401 GENERAL. Procedures in this chapter are mandatory for all missile exercises conducted in Warning and Restricted Areas under the jurisdiction of FACSFAC VACAPES. Refer to reference (b) for procedures in Oceanic Airspace. In the absence of specific guidance on matters of safety the most prudent course of action shall be followed. Where safety matters or operating procedures require further definition, such clarification shall be requested from FACSFAC VACAPES. Specific procedures or sequences for missile exercises which vary slightly from those outlined below to conform to specific operational conditions shall be detailed in a Letter of Instruction (LOI) and the PRE-MISSILEX briefing. Where FACSFAC VACAPES is unable to provide range control, the range controlling agency shall have a Letter of Agreement (LOA) with FACSFAC VACAPES assuming responsibility for safe conduct of the exercise. FACSFAC VACAPES shall not enter into such an agreement without assurance of the range controlling agency's ability to comply with the procedures of this manual.

402 DEFINITION OF TERMS. The following terms apply to all types of missile exercises conducted in FACSFAC VACAPES OPAREAS and are defined for clarity in describing missile firing procedures and range safety requirements:

a. CLEARED TO FIRE. The OCE/Safety Observer has received a GREEN RANGE from the Range Control Officer (RCO) and all safety and pre-briefed firing parameters have been met. Only the OCE/Safety Observer shall transmit the words CLEARED TO FIRE.

b. FLIGHT TERMINATION BOUNDARY (FTB). Defines the maximum allowable deviation from intended flight path before destruct procedures shall be initiated. The FTBs shall be determined by the Naval Air Warfare Center, Aircraft Division/NASA Wallops Flight Facility for the VANDAL target and the Pacific Missile Test Center for the Harpoon missile.

c. FOULED/RED RANGE. A non-participating contact is on the range within the predicted missile/target hazard

area or the range is unavailable for use. This call, which shall be made by any unit observing an actual or potentially unsafe situation, immediately cancels any clearance to fire and GREEN RANGE.

d. GREEN RANGE. The RCO holds no non-participating contacts within the predicted missile/target hazard area and the time frame is within the available range period. Only the RCO shall declare a GREEN RANGE. Once given, the Safety Observer or OCE, where applicable, may give a CLEARED TO FIRE if he determines all other safety parameters have been met. A GREEN RANGE does not in itself constitute a CLEARED TO FIRE.

e. MISSILE/TARGET HAZARD AREA (MHA). An area on the surface of the earth and the airspace immediately above, originating at the launch point, within which 98 per cent of the fired missiles, including BQM targets, TALDS (Tactical Air Launched Decoys) or major fragments thereof, shall be contained (either as a result of maximum aerodynamic/ballistic capability or controlled flight termination). The MHA will vary according to launch parameters and characteristics of the particular missile involved. Under no circumstances will any portion of the MHA lie west of longitude 075°20'00"W in W-72 or lie outside the other lateral boundries of w-72 or any other requested firing area.

f. OFFICER CONDUCTING EXERCISE (OCE). Charged with responsibility for the PRE-MISSILEX briefing, promulgation of the LOI, and overall safety of the exercise. The OCE shall personally conduct the exercise or delegate this authority in writing.

g. RANGE CONTROL OFFICER (RCO) AND BACK-UP RCO. Shall be qualified in accordance with the policy of the range controlling agency for any missile exercise conducted in FACSFAC VACAPES OPAREAS.

h. SAFE LAUNCH HEADING (SLH) FIRING FAN. Those assigned bearings within which, at the time of firing, the launch azimuth shall be confined. The SLH originates from the geographical location of the firing unit.

402.1 AIR-TO-AIR MISSILE EXERCISE TERMINOLOGY. The following terms shall be used to the maximum extent

possible in all air-to-air missile firings conducted in FACSFAC VACAPES operating areas:

a. ABORT. Terminate this portion of the exercise. Turn missile power switches off and ensure switches are safe.

b. ARMSTRONG, HOT TRIGGER. Pilot call to Safety Observer indicating that he has armed the missile.

c. BREAK THE DRONE. Command from Safety Observer to Drone Controller to initiate maximum performance turn for drone preservation purposes.

d. BOOLAH-BOOLAH. Target is destroyed.

e. BUZZER. Firing aircraft has Sidewinder IR tone.

f. CLEARED TO ARM. Firing aircraft is cleared to arm missiles. This does not constitute a clearance to fire.

g. CLEARED TO FIRE. Firing aircrew is cleared to release briefed missile(s) when all pre-briefed parameters are met. Only the airborne Safety Observer may authorize a CLEARED TO FIRE or transmit the word FIRE.

h. CONTACT (With bearing and range). Radar contact on target or tow/launch aircraft.

i. CONTINUE. Non-participating unit lies between the shooter and the range. GREEN RANGE will be issued when the MHA clears the nonparticipant.

j. FOX-1 Sparrow, FOX 2-Sidewinder, FOX 3-Phoenix/Amraam. Indicates trigger squeeze of appropriate missile.

k. HOTSHOT. Safety Observer call to ignite flare augmentation.

l. HUNG MISSILE. Firing attempted but the missile has not left aircraft.

m. JUDY. Intercept control assumed by firing aircraft.

n. LIGHTS OUT. Firing aircraft turns radar power and CW power switches off to preclude AIM-7 guidance.

o. OP-AWAY. Missile has left aircraft.

p. INTERROGATIVE RANGE STATUS/SAY RANGE STATUS. Interrogative call from Safety Observer to RCO. Only the RCO may transmit the words GREEN RANGE.

q. RENO. Range and bearing to target to confirm separation between tractor aircraft and target (Tractor aircraft must be steady inbound toward firing platform).

r. ROGER, CLEARED. Firing aircrew acknowledgment of clearance to fire.

s. SKIP-IT/KNOCK IT OFF. Break off intercept.

t. SMOKE THE DRONE. Pilot/Safety Observer call requesting smoke augmentation of BQM-74C target drone.

u. START-STOP POINTS. Issued to limit the length of the missile hazard area and define where weapons can be released. Start-stop points will be based on latitude/longitude or range bearings from a shore TACAN station.

v. SUNLAMP. Visual on flare.

w. TURN THE DRONE. Turn the drone to pre-briefed heading to facilitate AIM-9 firing.

402.2 SURFACE-TO-AIR MISSILE EXERCISE TERMINOLOGY. The following terms shall be used to the maximum extent possible in all surface-to-air missile firings conducted in FACSFAC VACAPES operating areas:

a. ABORT. Terminate this portion of the exercise. Turn missile power switches OFF/ensure switches are safe.

b. BIRDS AFFIRM. Fire Control locked onto target.

c. BIRDS AWAY. Missile has been launched.

d. BREAK ENGAGE. Cease tracking the target. Do not fire at the target and, if firing has occurred, do not allow missiles in-flight to intercept the target.

e. CEASE FIRE. Continue tracking the target. Do not fire at the target, but if firing has occurred, allow missiles in-flight to continue to the target.

f. CLEARED TO FIRE. Cleared to expend ordnance.

g. CONTACT (With range and bearing). Radar contact on target.

h. HOLD FIRE. Emergency order. Cease firing at the specified target. Do not fire at the target. If firing has occurred, do not allow missiles in flight to intercept the target.

i. MARK DELTA. Initiate command destruct procedures to destroy missile in-flight.

j. MARK INDIA. Missile intercept with target.

k. RANGE STATUS/SAY RANGE STATUS. Interrogative call to RCO requesting current range condition in affect.

l. RENO. Range and bearing to target to confirm separation between tractor aircraft and target. (Tractor aircraft must be steady inbound toward firing platform).

402.3 AIR-TO-SURFACE MISSILE EXERCISE TERMINOLOGY. The following terms shall be used to the maximum extent possible in all air-to-surface missile firings conducted in FACSFAC VACAPES operating areas:

a. ABORT. Terminate this portion of the exercise. Turn missile power switches off and ensure switches safe.

b. ARMSTRONG, HOT TRIGGER. Pilot call to Safety Observer indicating he has armed the missile.

c. CLEARED TO ARM. Firing aircraft is cleared to arm missile(s). This does not constitute a CLEARED TO FIRE.

d. CLEARED TO FIRE. Firing aircraft is cleared to fire briefed missile(s) when all pre-briefed launch parameters are met. Only the airborne Safety Observer may authorize a CLEARED TO FIRE.

e. CONTACT (With Range and Bearing). Radar/FLIR contact on target.

f. CONTINUE. Non-participating unit lies between the shooter and the target. GREEN RANGE will be issued when the MHA clears the nonparticipant.

g. HUNG MISSILE. Firing attempted, but missile has not left aircraft.

h. IMPACT. Missile has impacted target or water.

i. OP-AWAY. Missile has left aircraft.

j. RANGE STATUS/SAY RANGE STATUS. Interrogative call to RCO requesting current range condition in effect.

k. ROGER, CLEARED. Firing aircrew acknowledgment of clearance to fire.

402.4 HARPOON MISSILE EXERCISE TERMINOLOGY. The following terms shall be used to the maximum extent possible in all Harpoon missile exercises conducted in FACSFAC VACAPES operating areas:

a. ABORT. Terminate this portion of the exercise. Turn missile power switches off and ensure switches safe.

b. ARMSTRONG, HOT TRIGGER. Firing aircraft response to CLEARED TO ARM call indicating he has armed missile.

c. BULLDOG AWAY. Missile launch has been attempted.

d. CLEARED TO ARM. Firing aircraft/ship is clear to arm missile(s). This does not constitute a CLEARED TO FIRE.

e. CLEARED TO FIRE. Firing aircraft/ship is cleared to launch briefed missile(s) when all pre-briefed launch parameters have been met. Only the airborne Safety

Observer in the case of air launches or the OCE in the case of surface launches may authorize a CLEARED TO FIRE.

f. CONTACT (With range and bearing). Radar contact on target.

g. CONTINUE. Non-participating unit lies between the shooter and the range. GREEN RANGE will be issued when the MHA clears the nonparticipant.

h. DESTRUCT. Activate missile destruct mechanism.

i. HUNG MISSILE. Firing attempted, but missile has not launched.

j. IMPACT. Missile has impacted water or target.

k. OP-AWAY. Missile has left aircraft.

l. RANGE STATUS/SAY RANGE STATUS. Interrogative call to RCO requesting current range condition in effect.

m. ROGER, CLEARED. Firing unit acknowledgment of clearance to fire.

403 MISSILEX REQUESTS. Commanders or commanding officers of units desiring to conduct missile exercises in FACSFAC VACAPES OPAREAS shall send a message to FACSFAC VACAPES as soon as the requirement is identified, but no later than two weeks prior to the intended MISSILEX. Back-up range periods should be requested in the initial request message. Requests shall be submitted in accordance with the format delineated in Chapter III and contain the following additional information in the remarks section:

a. Back-up date and time requested in ZULU. A back-up period may be requested to provide for contingencies of weather, fouled ranges and equipment failure. Historically, back-up events are more likely to be successful if scheduled one or more days following the primary event.

b. The OCE and any other units intending to fire. For multiple unit exercises only one missile exercise request is required.

c. Number and type of target(s) requested.

d. Target augmentation (where applicable).

e. Number and type of missiles to be expended.

f. Additional requirements (LOI becomes CONFIDENTIAL with following data):

(1) Target Launch Altitude.

(2) Target Profile.

(3) Missile Parameters (altitude, speed of launching platform for air-to-air and air-to-surface, elevation, predicted intercept point command destruct time for surface-to-air).

(4) Basic exercise scenario/setup.

403.1 TARGETS. In order to achieve realism in missile exercise presentations, target profiles may be varied according to the user's request and within the performance and control characteristics of the target and the safety requirements of the area. Several different target systems may be scheduled through FACSFAC VACAPES:

a. BQM Targets. In W-72A, the BQM-74C target is launched from Dam Neck under the control of FLECOMPRON SIX (VC-6) at the direction of GIANT KILLER. Targets shall not be launched unless a recovery vehicle is present in the recovery area or immediately available. Arrangements may be made with VC-6 to deploy drones onboard ships for launching. References (a) and (e) provide specific details.

b. MQM Targets. The MQM-8G/X (VANDAL) target is launched into W-386 by NASA Wallops Flight Facility (WFF), Wallops Island, Virginia, under the direction of the Naval Air Warfare Center, Aircraft Division (NAVAIRWARCENAD), Patuxent River, Maryland. Refer to COMSECONDFLTINST 8840.1 series for VANDAL target allocation procedures. FACSFAC VACAPES shall be an ACTION addressee on all message traffic associated with VANDAL target exercises.

c. Towed Targets. Radar (TDU) augmented aerial tow targets are available through FACSFAC VACAPES. Detailed information is contained in Appendix D.

d. SEPTARS. SEPTAR surface targets are available for missile exercises. Details are contained in COMNAVAIRLANTINST 8840.1J and Appendix D.

403.2 EXERCISE AREAS. Missile exercises utilizing the shore launched BQM-74C are conducted in surface areas 14, 15, 21(A,B), 22(A,B) of W-72A and W-72B. However, drone controllability diminishes if the drone goes farther east than 073°00'00"W longitude. Three weeks prior notice is required for use of W-386B/E and W-387 to coordinate airspace scheduling with other agencies. Other OPAREAS may be requested and shall be reviewed by FACSFAC VACAPES on a case-by-case basis.

403.3 MISSILEX SCHEDULING. Primary and back-up missile exercises shall be promulgated in the FACSFAC VACAPES OPSKED. In the event the primary MISSILEX is canceled, the OCE shall notify FACSFAC VACAPES and all participating units within one hour of cancellation to activate the back-up period (if desired). The back-up may be activated by telephone or radio communications, however, message confirmation shall be sent in all cases. Without proper notification, the back-up event shall automatically be canceled. After promulgation of the weekly FACSFAC VACAPES OPSKED, the addition of a missile exercise is not normally feasible due to scheduling conflicts. Requests for changes in scheduled MISSILEX times shall be received by FACSFAC VACAPES 72 hours in advance in order that the proper coordination may be effected. The OCE shall promptly notify FACSFAC VACAPES and all participants of any cancellations.

404 PARTICIPATING UNITS AND RESPONSIBILITIES. The following is a list of primary participating units with their associated responsibilities:

a. Missile Firing Unit

(1) Submit requests to FACSFAC VACAPES and obtain necessary Competitive Exercise (COMPEX), surveillance and AUTOCAT services, and Safety Observers to conduct the exercise.

(2) Establish/verify target requirements and request target/missile allocations.

(3) Arrange face-to-face briefing with all participating units and promulgate necessary pre-exercise information and LOI required to fulfill FXP, NATOPS, and tactical manual requirements. If a back-up RCO is desired, inform FACSFAC VACAPES of the unit designated to be back-up Range Control (E-2 or Ship). See Appendix L of this instruction.

b. FACSFAC VACAPES (GIANT KILLER).

(1) Schedule the exercise and coordinate times and allocation of services and OPAREAS.

(2) Provide range safety, control and surveillance and air intercept control (where applicable).

c. FLECOMPRON SIX (VC-6). Provide BQM-74/SEPTAR launch, control and recovery (where required).

d. CAS CONTRACTOR. Provide tow aircraft and TDU Target.

e. NWAD FIELD OFFICE OCEANA. Provide missile telemetry recording.

f. COMNAVAIRLANT. Assist firing unit in obtaining AUTOCAT and surveillance aircraft.

g. FUNCTIONAL WING COMMANDER. Designate Safety Observers.

h. SURVEILLANCE AIRCRAFT. Provide the RCO the location of all surface and airborne contacts in the approved area. For missile exercises where the OCE/Safety Observer is not equipped with air search radar, surveillance aircraft capable of simultaneous air and surface search shall be required. P-3, S-3 and aircraft of similar capabilities may be utilized if the OCE/Safety Observer is capable of radar air surveillance throughout the predicted missile hazard area. LINK capable surveillance aircraft are strongly recommended. If direct two-way UHF communications are not possible, an AUTOCAT capable aircraft shall also be required. Surveillance aircraft are normally required in all missile exercises conducted in FACSFAC VACAPES OPAREAS. Exceptions can be made for short-range missiles such as RIM-7 versus TDU and certain air-to-ground weapons.

405 LOI. The OCE shall provide FACSFAC VACAPES and all participating units a draft LOI at the earliest opportunity. Advance liaison with FACSFAC VACAPES is also highly encouraged. This liaison may serve to identify possible problems early and provide extra time for resolution. The final hard copy LOI shall be provided to all participating units at the face-to-face brief. Failure of all participating units to hold a signed copy or message copy of the LOI shall be cause to cancel the exercise. The LOI shall include requirements for the conduct of the exercise including the time line for occurrence of all events. It shall be the basis for the pre-exercise briefing discussed in paragraph 406. The LOI may be promulgated by letter or message. The LOI format for missile exercises conducted in FACSFAC VACAPES OPAREAS is illustrated in Appendix G.

406 PRE-MISSILEX BRIEFINGS. In order to ensure an adequate mutual understanding of firing procedures and responsibilities, a PRE-MISSILEX briefing shall be held no earlier than four working days and no later than 24 hours prior to the exercise. The OCE shall notify all participants of the time and place of the brief at least 48 hours prior. The brief shall be conducted using the briefing guide contained in Appendix H. Actual participants from all units involved shall be present to include the following personnel:

a. The Safety Observer and all firing air crews.

b. VC-6 representative (for BQM presentation) and or TALD aircraft aircrew.

c. Para-flare and towed dummy unit (TDU) Aircrews. The actual mission pilot shall be at the PRE-MISSILEX brief. The actual mission pilot will attend the pre-launch ready room brief.

d. NAS Oceana Base Weapons representative (if required).

e. FACSFAC VACAPES Range Control Officer (RCO) and Range Supervisor (RS).

f. Surveillance Aircraft Mission Commander.

g. Ship's Operations Officer/TAO, Combat Direction Center or Combat Systems Officer (and intercept controller for BQM or TDU presentations). (Applicable to surface-to-air and surface-to-surface missile exercises only.)

h. Back-Up Range Control Officer (if required). The B/U RCO must meet requirements of the MOA as outlined in Appendix L.

407 RANGE SAFETY. This paragraph defines the parameters within which missile exercises shall be conducted. FACSFAC VACAPES is responsible for the implementation of range safety for all missile exercises. Range safety shall be effected by compliance with the following range safety criteria:

a. In-flight Missile Safety. A separate MHA is prepared by FACSFAC VACAPES for each type of missile and for each missile firing scenario (air-to-air, surface-to-air, and air-to-surface). Reference (a) contains these MHAs. The MHAs are dependent upon conditions such as launch platform altitude/speed, target altitude/speed, intercept range, and missile flight termination criteria. Adherence to the prescribed safety criteria for each missile and target is mandatory.

b. Area To Be Cleared. Once the OPAREA request is granted FACSFAC VACAPES shall issue the NOTAM and NOTMAR

for the area. The MHA shall be clear of all ships and aircraft except for the firing and other participating units. The MHA shall lie entirely within and no closer than 2.5 miles to the edge of the area covered by the NOTAM/NOTMAR and three miles to any inhabited land mass.

c. Weather. Firings shall not be conducted unless weather conditions are in conformance with the following:

(1) Air-to-Air. 5,000 feet/5 miles visibility between layers.

(2) Surface-to-Air. Winds less than 50 knots relative wind.

(3) BQM. VFR (1,000 feet and 3 nautical miles visibility).

(4) TDU. No intervening ceiling below the tow aircraft.

d. Missile Destruct Systems. A destruct system, if incorporated into the design of the missile, shall be installed and operative.

e. Missile Launch Limitations. Missiles shall not be launched from a position or in any direction where there is a reasonable possibility that the missile might land outside of the scheduled exercise area.

f. Missile Launch Aircraft Position. Aircraft firing air-to-air missiles shall be positioned for firing by the AIC controller to ensure that missile fallout/debris is restricted to the MHA within the scheduled exercise area.

g. Area Activation Requirements. Under no circumstances shall a missile exercise be conducted in an area or a range which is not covered by appropriate NOTMARS. FACSFAC VACAPES is responsible for notification of the proper agencies to ensure they are published.

407.1 WAIVER OF RANGE SAFETY CRITERIA. Normally, only operations which meet all the safety criteria specified for a particular missile to be employed may be scheduled. However, it is recognized that deviations from the above described criteria may be necessary if mission objectives are to be achieved. Whenever a deviation from the established criteria is determined to be necessary, a formal request shall be submitted to FACSFAC VACAPES. The request for waiver, along with supporting data shall be submitted as early as practical to preclude any delay. Supporting data should include:

a. A statement of the technical requirement which makes the waiver necessary.

b. A study which analyzes the increase in risk which would result if the waiver is granted.

407.2 RANGE CLEARANCE FACTORS. Missiles shall be fired only after a GREEN RANGE has been declared by the RCO and firing clearance has been granted by the OCE/Safety Observer. GREEN RANGE by the RCO is based on:

a. Communications. Exercise participants shall have direct, continuous two way communications with FACSFAC VACAPES. Loss of direct communications shall result in suspension of the exercise. Cancellation shall result if communications are not restored.

b. Surveillance. Surveillance indicates no non-participating air and surface contacts within the MHA.

c. Safety. No known conditions exist which would result in a safety hazard.

407.3 TERMINATION/DELAY OF EXERCISE. It is the responsibility of all participants to use all available means to ensure the safety of all ships, submarines and aircraft in and around the exercise area. In those instances where information available indicates the exercise may not be continued safely, the OCE or his designated representative shall terminate the operation. Any participant observing an unsafe or potentially unsafe situation shall call RED RANGE. If the RCO believes the range will clear in the near future he will

call RED RANGE, CONTINUE. The exercise may be continued when the RCO again declares a GREEN RANGE.

408 AIR-TO-AIR MISSILE EXERCISES. Procedures in this section are applicable to any missile exercise utilizing the normal servicing units under the cognizance of FACSFAC VACAPES. Specific course rules and OPAREA procedures for the missile firing area concerned must be included in the LOI and PRE-MISSILEX and pre-flight briefings.

408.1 TRAINING REQUIREMENTS. Scarcity of target assets and support personnel dictate the following requirements for adhered the planning and conduct of the missile exercise:

a. A minimum of two fully mission capable firing aircraft are required before the target drone will be launched.

b. A BQM shall not be launched with less than 20 minutes of range time remaining or within one hour prior to sunset.

c. Firing air crews shall know the correct maneuvering missile envelope and fire only within those parameters. Verification of this knowledge is implicit in the OCE's concurrence in conducting the exercise.

d. No single aircraft shall be loaded with two conflicting telemetry (TM) packages.

e. The Flight Leader, Safety Observer or RCO may terminate or delay the exercise in the event of adverse weather or other preemptive circumstances.

408.2 TELEMETRY CHECKS (TM). TM checks shall be conducted on deck on the assigned TM frequency. Every attempt shall be made to conduct TM checks prior to launch.

408.3 SAFETY OBSERVERS. The OCE may delegate responsibilities for the conduct of the missile exercise to the Safety Observer. This designation shall be noted in the LOI. Safety Observers shall be present at the PRE-MISSILEX briefing. Fleet squadron Safety Observers shall be Lieutenant Commanders and above and be designated Mission Commanders. The FITWING, LATWING or Marine Air Group Commander may utilize experienced Fleet Replacement Squadron (FRS) Lieutenants/Captains (0-3) as Safety Observers if he so designates them as such in writing. In the event the primary Safety Observer is unable to participate, the exercise may proceed if the alternate attended the pre-exercise brief. Only the Safety Observer may transmit a CLEARED TO FIRE or use the word FIRE.

408.4 RANGE SURVEILLANCE AND SAFETY RESPONSIBILITIES. CINCLANTFLT exercises overall cognizance regarding range operational procedures and safety criteria. FACSFAC VACAPES is responsible for ensuring that range supervision, communication, coordination, and surveillance of missile exercises are in compliance with range safety procedures and applicable directives in the warning areas. Specific responsibilities are:

a. The RCO shall:

(1) Declare range status. The RCO alone has the authority to declare a GREEN RANGE.

(2) Supervise range surveillance utilizing airborne surveillance aircraft, shore based radar, and LINK.

(3) Provide clearance to launch aerial targets.

(4) Establish or change the missile firing unit's position and the orientation of the MHA prior to the time of firing.

b. The Surveillance Aircraft shall:

(1) Report all surface and air contacts in or approaching the scheduled missile exercise area either

via DATA LINK or range/bearing calls from a TACAN site designated by the RCO.

(2) If DATA LINK is not operable, provide surface situation update every 15 minutes and as requested by the RCO.

c. The Aircraft Pilot in Command shall:

(1) Comply with applicable range safety criteria for the missile/target employed.

(2) Ensure the missile/target and all debris following destruct are contained within the defined MHA. Notification shall be given to the RCO if unable to comply with this requirement.

(3) Execute LIGHTS OUT as necessary to preclude endangerment of participating or non-participating units.

d. Safety Observer. The Safety Observer shall ensure all of the following conditions have been met prior to broadcasting CLEARED TO FIRE.

(1) The RCO has declared a GREEN RANGE.

(2) No surface or non-firing air contacts are within or approaching the predicted MHA.

(3) The firing aircraft has reported CONTACT and JUDY (TALLY-HO and BUZZER for AIM-9). To ensure that the firing aircraft has locked onto the target, the aircrew shall transmit bearing and range to the target and closure (Vc) every five miles.

(4) The drone shall be observed to be turning before a CLEARED TO FIRE may be issued for rear quarter AIM-9 firing.

408.5 BQM-74C TARGET PROCEDURES. The following procedures apply to Air-to-Air missile exercises utilizing BQM-74C target drones in the FACSFAC VACAPES OPAREAS. BQM-74C targets, when launched from Dam Neck, shall be controlled by VC-6 under the direction of GIANT KILLER. GIANT KILLER may delegate this authority as required. If an embarked target detachment is providing

BQM-74C services, targets shall be launched and controlled by VC-6 under the direction of the OCE assisted by the RCO.

a. Firing aircraft shall be vectored by the primary intercept control unit with the Safety Observer in company. The aircraft designated prior to acceptance of the initial vector will be the only firing aircraft. However, section firing is authorized when circumstances dictate, but only if pre-briefed (See paragraph 408.9). The Safety Observer shall fly in close proximity, but well clear of the firing aircraft. The Safety Observer shall retain his responsibilities throughout the run and shall not assume the lead for firing purposes.

b. Initial vectors shall be provided by the primary air intercept control unit. The firing aircraft, however, is responsible for generating proper displacement and positioning for weapons release.

c. The firing aircraft shall report all contacts, JUDY with Bearing, Range, and Vc, and transmit directive commentary for all maneuvers over the control frequency.

d. The RCO shall transmit the safe launch headings, and start and stop points which the Safety Observer shall acknowledge by reading back.

e. The RCO shall transmit GREEN RANGE only when the following parameters have been met:

(1) All participants have direct, continuous two-way communication with FACSFAC VACAPES.

(2) Surveillance indicates no non-participating air and surface contacts within the missile/target hazard area.

(3) No known situation exists which would result in a safety hazard.

f. The Safety Observer shall transmit CLEARED TO ARM if he concurs with the GREEN RANGE call, the intercept is progressing safely, and all other firing parameters are met. If the Safety Observer is unsure of whether or not

he has a GREEN RANGE, he shall request range status from the RCO using INTERROGATIVE RANGE STATUS.

g. The firing aircrew shall acknowledge the Safety Observer cleared to arm transmission with, (MODEX), ARMSTRONG, HOT TRIGGER.

h. The Safety Observer shall transmit CLEARED TO FIRE only when satisfied that the conditions in paragraph 408.5d have been met and the firing aircraft has achieved the desired firing parameters.

i. The shooter shall acknowledge, (MODEX), ROGER CLEARED.

j. The aircrew of the firing aircraft shall call FOX ONE/TWO/THREE at trigger squeeze and OP-AWAY at missile launch, or HUNG MISSILE if the missile does not leave the aircraft.

k. For rear-quarter AIM-9 shots, the drone shall be turned to a predetermined heading at four nautical miles or on the Safety Observer's call, whichever occurs first. If available, smoke augmentation shall be called for to aid visual acquisition of the target.

l. Upon visual acquisition, the firing aircraft calls TALLY-HO and HOTSHOT if the drone is flare equipped. HOTSHOT shall not be called prior to visually acquiring the target.

m. Upon sighting the flare, the shooter shall call SUNLAMP. When a good IR tone is obtained, the firing aircraft transmits BUZZER. The Safety Observer shall transmit TURN THE DRONE and CLEARED TO FIRE only if the shooter has transmitted BUZZER and all other firing parameters have been met.

n. After missile release, the Safety Observer shall ensure that the shooter acknowledges SWITCHES SAFE. The RCO shall call RED RANGE and vector the section to the CAP station for the next intercept or clear of the range if the evolution is complete.

408.6 TOWED DUMMY UNIT (TDU) TARGET PROCEDURES. The following procedures apply to air-to-air missile

exercises conducted under the cognizance of FACSFAC VACAPES utilizing a TDU target.

a. The firing aircraft, with the Safety Observer in company, shall be vectored by the primary control unit. The Safety Observer shall fly in close proximity, but well clear of the firing aircraft. Section firings against TDU Targets are prohibited.

b. The Safety Observer shall retain his responsibilities throughout the run and shall not assume the lead for firing purposes.

c. The firing and Safety Observer aircraft shall be at or above the tow aircraft altitude throughout the run to avoid encounters with the tow cable.

d. The firing aircraft is responsible for required displacement at weapons release. In no case shall firing take place with greater than 40 degrees of target aspect.

e. The firing aircraft shall report contact on both target and tow aircraft (JUDY with Vc), and transmit commentary over the primary control frequency.

f. The RCO shall transmit the safe launch headings and the Safety Observer shall acknowledge by reading back the headings.

g. The RCO shall transmit GREEN RANGE only when parameters listed in paragraph 408.6g have been met and the firing aircraft has reported two discernible targets (RENO).

h. The Safety Observer shall transmit CLEARED TO ARM, only if he concurs with the GREEN RANGE call, the intercept is progressing safely, and the tow aircraft has passed behind the shooter's three or nine o'clock position. If the Safety Observer is unsure of whether or not he has a GREEN RANGE, he shall request RANGE STATUS from the RCO.

i. The firing aircrew shall respond, (MODEX), ARMSTRONG, HOT TRIGGER.

j. The Safety Observer shall transmit CLEARED TO FIRE only when satisfied the conditions in paragraph 408.5d have been met and the firing aircraft has achieved the desired firing parameters.

k. The shooter shall acknowledge, (MODEX), ROGER CLEARED.

l. The shooter shall call FOX at trigger squeeze and OP-AWAY at missile launch or HUNG MISSILE if the missile does not leave the aircraft.

m. After missile launch, the Safety Observer shall ensure that the shooter acknowledges SWITCHES SAFE. The RCO shall vector the section to the CAP station for the next intercept or clear of the range if the evolution is complete.

408.7 SECTION FIRING. All safety precautions in appropriate NATOPS and Tactical Manuals shall be adhered to for section firings. Additionally, the following applies to section firings conducted in FACSFAC VACAPES OPAREAS:

a. No firing shall be attempted without a visual on the wing man. Section firings at TDU Targets are prohibited.

b. AIM-7 firing is prohibited when the wing man is within 70 degrees of the firing aircraft's nose unless the wing man/target track crossing angle (TCA) is greater than 150 degrees and proper Vc is observed.

c. AIM-9 firing is prohibited when the wing man is within 50 degrees of the firing aircraft's nose unless the wing man's TCA is greater than 120 degrees.

409 SURFACE-TO-AIR MISSILE FIRING EXERCISES. Procedures in this section are generally applicable to any Surface-to-Air Missile Exercise utilizing the normal servicing units under the cognizance of FACSFAC VACAPES. Specific course rules and OPAREA procedures for the firing range concerned shall be included in the LOI and PRE-MISSILEX briefing. Due to the MHA of RIM-7 missiles OCE may be authorized RCO duties and responsibilities and conduct event IAW this instruction

409.1 TRAINING REQUIREMENTS. Scarcity of target assets and of support personnel dictate the following requirements for the planning and conduct of the missile exercise:

a. No BQM drones shall be launched with less than 20 minutes range time remaining or within one hour of sunset.

b. All agencies and units participating in the exercise shall be present at the PRE-MISSILEX briefing.

c. Correct terminology as outlined in paragraph 402.2 shall be utilized in the proper sequence.

d. The OCE or RCO may terminate the exercise in the event of bad weather or other restrictive circumstances.

409.2 RANGE SURVEILLANCE AND SAFETY RESPONSIBILITIES. CINCLANTFLT exercises overall cognizance regarding range, operational procedures and safety criteria. FACSFAC VACAPES is responsible for ensuring that range supervision, communication, coordination and surveillance of missile exercises are in compliance with range safety procedures and applicable directives in the Warning Areas. Specific responsibilities are:

a. The RCO shall:

(1) Supervise range surveillance utilizing airborne surveillance aircraft, shore based radar and LINK.

(2) Provide clearance to launch aerial targets.

(3) Position units in accordance with the LOI and modify the MHA as necessary.

(4) Call GREEN RANGE when all conditions are met and verified by the surveillance unit.

(5) Order RED RANGE, HOLD FIRE, or BREAK ENGAGE as necessary to ensure that participating or non-participating units are not endangered by continuation of the exercise.

b. The Surveillance Aircraft shall:

(1) Report all contacts in or approaching the MHA via DATA LINK. If LINK 11 is unavailable or unreliable, contacts will be reported using range and bearing from a shore facility TACAN designated by the OCE/RCO or by latitude/longitude.

(2) Provide surface situation reports (SITREPS) as required and at least every 15 minutes when LINK is unavailable or unreliable, and just prior to launch. See page 4-10 Section 404.j.

c. The OCE shall:

(1) Conduct missile firings in accordance with established range procedures and range safety criteria.

(2) Ensure that CLEARED TO FIRE is given and missiles are launched only after having received GREEN RANGE call from the RCO.

(3) Order RED RANGE, HOLD FIRE, or BREAK ENGAGE as necessary to ensure that participating or non-participating units are not endangered by continuation of the exercise.

(4) Ensure that no missiles are launched after RED RANGE is transmitted by the RCO or any participating unit. The RCO must retransmit GREEN RANGE before the OCE may continue the exercise.

d. The Commanding Officer of a Firing Unit shall:

(1) Comply with applicable range and safety instructions and destruct criteria for the particular missile employed.

(2) Ensure that the missile and all missile components will be contained within the designated MHA. Notification must be made to the RCO if unable to comply with this requirement.

(3) Execute BREAK ENGAGE, CEASE FIRE or HOLD FIRE, as necessary, to prevent endangering participating or non-participating units.

409.3 BQM-74C TARGET PROCEDURES. The following procedures apply to all Surface-to Air Missile Exercises utilizing BQM-74C target drones in the FACSFAC VACAPES OPAREAS. BQM-74C targets, when launched from Dam Neck, shall be controlled by VC-6 under the direction of GIANT KILLER. GIANT KILLER may delegate this authority as required. If an embarked target detachment is providing BQM-74C services, targets shall be launched and controlled by VC-6 under the direction of the OCE assisted by the RCO.

a. All participating units shall know the target profile and receive confirmation from the RCO and OCE when the target is inbound.

b. No unit shall fire missiles until the RCO has declared GREEN RANGE and the OCE has issued CLEARED TO FIRE.

c. Any participating unit noticing a current or developing unsafe situation shall call RED RANGE. All missile systems shall be immediately safed.

d. All units must maintain a sharp lookout for and broadcast the position, course and speed of non-participating air and surface contacts.

e. Continuous two-way communications shall be maintained or termination of the exercise shall result.

f. The word FIRE shall not be broadcast by anyone except the OCE or Safety Observer (one will be designated at the Face to Face Brief).

g. Clearance for shore drone launch shall come only from the RCO. Clearance for embarked drone launch shall come only from the OCE.

h. The RCO shall transmit safe launch headings and the OCE shall acknowledge by reading back the headings.

i. The RCO shall transmit GREEN RANGE when the drone has established its inbound run and the range is confirmed free of any non-participating contacts.

j. The firing unit shall report BIRDS AFFIRM with range and bearing to the target.

k. The OCE shall transmit a CLEARED TO FIRE only if he is in agreement with the RCO's GREEN RANGE call, launch azimuth is within the assigned safe launch headings and all other firing parameters have been met.

l. The firing unit shall transmit BIRDS AWAY (with time of flight) when the missile(s) are launched.

m. The firing unit shall report MARK INDIA to indicate missile intercept at the target's closest point of approach.

n. The firing unit shall report MARK DELTA to indicate activation of the missile destruct system. For RIM-7, the firing unit shall report BREAK ENGAGE to indicate radar guidance has been secured.

o. The target controller shall direct the target into position for the next presentation (if required).

409.4 TOWED DUMMY UNIT (TDU)/BANNER TARGET PROCEDURES. The following procedures apply to all Surface-to Air Missile Exercises conducted under the cognizance of FACSFAC VACAPES against TDU and banner aerial targets. Tow aircraft shall be positioned at the pre-briefed station and altitude by the RCO. Control of tow aircraft for actual profiles shall be passed to the OCE.

a. The TDU/banner shall normally be streamed approximately 25,000 feet behind and 2,000 feet below the tow aircraft. It requires 15 minutes to reel-out the TGT/Cable, and 15 minutes to reel-in the same assembly. Firing units must plan for 30 minutes of range time for this procedure.

b. The RCO shall provide the firing unit initial bearing and range to the target aircraft.

c. The firing unit shall lock on to the TDU/banner only. The firing unit shall at no time lock on to the tow aircraft. When tow/target separation and target lock on is confirmed, the firing unit will transmit RENO to the RCO.

d. The RCO shall transmit the safe launch headings and the OCE shall acknowledge by reading back the headings.

e. The RCO shall transmit GREEN RANGE only when the missile hazard area is free of non-participating contacts.

f. The tow aircraft will mark on top of the firing unit and issue CLEARED TO FIRE after the RCO issues GREEN RANGE.

g. The OCE shall issue a WEAPONS FREE only when the following parameters have been met:

(1) A GREEN RANGE has been issued by the RCO and the OCE and firing unit concurs.

(2) The tow aircraft has transmitted MARK ON TOP, CLEARED TO FIRE.

(3) Positive target lock-on has been confirmed.

(4) The tow aircraft has been visually confirmed to be overhead the firing unit.

h. The firing unit shall report BIRDS AWAY when the missile is launched.

i. The RCO shall declare RED RANGE at the conclusion of the exercise.

410 AIR-TO-SURFACE MISSILE EXERCISE PROCEDURES. The following procedures are specifically addressed to Air-to-Surface Missile Exercises conducted in FACSFAC VACAPES OPAREAS utilizing normal servicing units under the cognizance of FACSFAC VACAPES. Specific rules and OPAREA procedures for the firing area concerned shall be included in the LOI and pre-exercise briefings.

410.1 TRAINING REQUIREMENTS. Scarcity of target assets and support personnel dictate the following requirements for the planning and conduct of the exercise:

a. All agencies and units participating in the exercise are represented at the PRE-MISSILEX briefing.

b. The OCE, RCO or flight leader may terminate the exercise in the event of adverse weather or other restrictive circumstances.

410.2 SAFETY OBSERVERS. The OCE may delegate responsibility for the conduct of the Missile Exercise to the airborne Safety Observer. This designation shall be noted in the LOI. Safety Observers shall be present at the PRE-MISSILEX briefing. Fleet Squadron Safety Observers shall be Lieutenant Commanders and above and be designated Mission Commanders. The LATWING or Marine Air Group Commander may utilize experienced Fleet Replacement Squadron (FRS) Lieutenants/Captains (0-3) as Safety Observers if he so designates them as such in writing. In the event the primary Safety Observer is unable to participate, the exercise may proceed if a pre-briefed alternate is provided. Only the Safety Observer may transmit a CLEARED TO FIRE or use the word FIRE.

410.3 RANGE SURVEILLANCE AND SAFETY RESPONSIBILITIES. CINCLANTFLT exercises overall cognizance regarding range operational procedures and safety criteria. FACSFAC VACAPES is responsible for ensuring that range supervision, communication, coordination and surveillance of missile exercises are in compliance with Range Safety criteria and other applicable directives in the Warning Areas. Specific responsibilities are:

a. The RCO shall:

(1) Declare range status. The RCO alone has the authority to declare GREEN RANGE.

(2) Supervise range surveillance utilizing airborne surveillance aircraft, shore based radar and LINK.

(3) Establish or change the missile firing unit's position and the orientation of the MHA at the time of firing.

b. The Surveillance Aircraft shall:

(1) Report all contacts in or approaching the MHA via DATA LINK. If LINK 11 is unavailable or unreliable, contacts will be reported using range and bearing from a shore facility TACAN designated by the OCE/RCO or by latitude/longitude.

(2) Provide surface situation reports (SITREPS) as required and at least every 15 minutes when LINK is unavailable or unreliable, and just prior to firing.

c. The Aircraft Pilot in Command shall:

(1) Comply with applicable range safety criteria for the missile employed.

(2) Ensure the missile and all missile components are contained within the missile hazard area scheduled. Notification shall be given to the RCO if unable to comply with this requirement.

d. Safety Observer: The Safety Observer shall ensure that all of the following conditions have been met prior to broadcasting CLEARED TO FIRE:

(1) The RCO has declared GREEN RANGE.

(2) Non-participating air or surface contacts are not within or approaching the missile hazard area.

(3) The firing aircraft is making a safe attack on the correct target.

410.4 HELLFIRE, ZUNI, 5" ROCKET AND 2.75" ROCKET PROCEDURES. The following procedures apply:

NOTE: Firing aircraft can provide their own surveillance for Hellfire, Zuni, 5" and 2.75" rocket exercises.

a. The following safety considerations shall be understood by all participants in the exercise:

(1) Each participant shall know the proposed SEPTAR patterns (if utilized).

(2) All units must maintain a sharp lookout for non-participating air and surface contacts and transmit their position.

(3) No aircraft shall fire missiles until a GREEN RANGE is issued by the RCO and a CLEARED TO FIRE is transmitted by the Safety Observer.

(4) Any participating unit noticing a current or developing unsafe situation shall call RED RANGE. All missile systems shall be immediately safed.

(5) Loss of two-way communication with the RCO/Safety Observer shall require an ABORT regardless of circumstances.

(6) The word FIRE shall not be broadcast by any unit except the Safety Observer who transmits CLEARED TO FIRE. Only the RCO shall broadcast GREEN RANGE.

b. SEPTARS, if utilized, are launched and controlled by VC-6 personnel under the direction of the OCE.

c. Units shall be positioned in accordance with the LOI and modified as necessary by the RCO/OCE to meet range safety requirements described in paragraph 407.2.

d. The RCO shall transmit GREEN RANGE when there are no known air or surface targets within or approaching the predicted MHA. Only the RCO may transmit the words GREEN RANGE. The Safety Observer may only request the status of the range with the transmission INTERROGATIVE RANGE STATUS.

e. The Safety Observer shall issue CLEARED TO FIRE only if the following conditions have been met:

(1) No unauthorized air or surface contacts are within or approaching the predicted MHA.

(2) The firing aircraft has acknowledged the firing heading and is making a safe attack on the correct target.

(3) The RCO has transmitted GREEN RANGE.

f. The firing aircraft/observer shall report missile impact and assess the damage to the target.

411 HARPOON AND TOMAHAWK PROCEDURES. Procedures in this section address surface, subsurface and air launched Harpoon and Tomahawk missile exercise procedures conducted in FACSFAC VACAPES OPAREAS that are not covered in the Pacific Missile Test Center A/R/UGM-84A Harpoon Missile Firing Guide.

411.1 TRAINING REQUIREMENTS. Scarcity of target assets and support personnel dictate the following requirements for the planning and conduct of the exercise:

a. All agencies and units participating in the exercise shall be represented at the PRE-MISSILEX briefing.

b. The OCE, RCO, flight leader or Safety Observer may terminate the exercise in the event of adverse or other restrictive circumstances.

c. Harpoon or Tomahawk missiles shall not be fired in FACSFAC VACAPES OPAREAS without an internal destruct system installed and a unit capable of enabling the destruct system on station.

411.2 SAFETY OBSERVERS. An airborne Safety Observer/Control Aircraft is required to follow the missile during all Harpoon and Tomahawk missile exercises. The OCE shall request the missile aircraft from COMNAVAIRLANT or COMNAVAIRTESTCEN. The Safety Observer/chase aircraft aircrew shall be present at the PRE-MISSILEX briefing. The Safety Observers shall be Lieutenant Commanders or above and be designated Mission Commanders. FITWING, LATWING or Marine Air Group Commanders may utilize experienced Fleet Replacement Squadron (FRS) Lieutenants/Captains (0-3) as Safety Observers if he so designates them in writing. In the event that the primary Safety Observer is unable to

participate, the exercise may proceed if an alternate attended the PRE-MISSILEX briefing.

411.3 RANGE SURVEILLANCE AND SAFETY RESPONSIBILITIES. CINCLANTFLT exercises overall cognizance regarding range operational procedures and safety criteria. FACSFAC VACAPES is responsible for range supervision for Harpoon exercises conducted in FACSFAC VACAPES OPAREAS. Operational Commanders may assume responsibility for range supervision by way of a LOA for exercises conducted when FACSFAC VACAPES is unable to provide control. The unit responsible for range supervision shall ensure communications, coordination and range surveillance of missile exercises are in compliance with range safety criteria and applicable directives in the Warning Areas. Specific responsibilities are:

a. The RCO shall:

(1) Declare range status. The RCO alone has the authority to declare GREEN RANGE.

(2) Supervise range surveillance utilizing airborne surveillance aircraft, shore based radar and LINK.

(3) Order destruction of the missile if it crosses the flight termination boundary.

b. The Surveillance Aircraft shall:

(1) Provide surface SITREPS as required and at least every 15 minutes, and just prior to launch.

(2) Report all contacts in or approaching the missile hazard area via DATA LINK. If LINK 11 is unavailable or unreliable, contacts will be reported using range and bearing from a shore facility TACAN designated by the OCE/RCO or by Latitude/Longitude.

c. The OCE shall:

(1) Comply with Harpoon/Tomahawk Range safety criteria.

(2) Ensure that the missile and all missile components are contained within the MHA. Notification shall be given to the RCO if unable to comply with this requirement.

d. Safety Observer/Control Aircraft: In the event of an air launch, the Safety Observer shall ensure the following conditions have been met prior to broadcasting CLEARED TO FIRE:

(1) The RCO has declared GREEN RANGE.

(2) No non-participating air or surface contacts are within or approaching the missile hazard area.

(3) The firing unit is making a safe attack on the correct target.

e. Destruct Aircraft. Activate the missile destruct system immediately upon broadcast of a DESTRUCT command.

411.4 PROCEDURES. Harpoon/Tomahawk procedures in their entirety are beyond the scope of this manual. Consult the Pacific Missile Test Center A/R/UGM HARPOON/TOMAHAWK MISSILE FIRING GUIDE for procedures. Advanced liaison with FACSFAC VACAPES is required in order to coordinate specific missile firing parameters, safety considerations, OPAREAS and surveillance. A detailed draft LOI shall be provided to FACSFAC VACAPES prior to the PRE-MISSILEX briefing.

412 HARM MISSILE PROCEDURES. Procedures in this section address Air Launched HARM Missile Exercise procedures conducted in FACSFAC VACAPES OPAREAS.

412.1 TRAINING REQUIREMENTS. Scarcity of target assets and support personnel dictate the following requirements for the planning and conduct of the exercise:

a. All agencies and units participating in the exercise shall be represented at the PRE-MISSILEX briefing.

b. The OCE, RCO, Flight Leader or Safety Observer may terminate the exercise in the event of adverse or other restrictive circumstances.

412.2 SAFETY OBSERVERS. An airborne Safety Observer/control aircraft is required during all HARM missile exercises. The Safety Observer/chase aircraft aircrew shall be present at the PRE-MISSILEX briefing. The Safety Observers shall be Lieutenant Commanders or above and be designated Mission Commanders. FITWING,LATWING or Marine Air Group Commanders may utilize experienced Fleet Replacement Squadron (FRS) Lieutenants/ Captains (0-3) as Safety Observers if he so designates them in writing. In the event that the primary Safety Observer is unable to participate, the exercise may proceed if an alternate attended the PRE-MISSILEX briefing.

412.3 RANGE SURVEILLANCE AND SAFETY RESPONSIBILITIES. CINCLANTFLT exercises overall cognizance regarding range operational procedures and safety criteria. FACSFAC VACAPES is responsible for range supervision for HARM Missile exercises conducted in FACSFAC VACAPES OPAREAS. Operational Commanders may assume responsibility for range supervision by way of a LOA for exercises conducted when FACSFAC VACAPES is unable to provide control. The unit responsible for range supervision shall ensure communications, coordination and range surveillance of missile exercises are in compliance with range safety criteria and applicable directives in the Warning Areas. Specific responsibilities are:

a. The RCO shall:

(1) Declare range status. The RCO alone has the authority to declare GREEN RANGE.

(2) Supervise range surveillance utilizing airborne surveillance aircraft, shore based radar and LINK.

(3) Order destruction of the missile if it crosses the flight termination boundary.

b. The Surveillance Aircraft shall:

(1) Report all contacts in or approaching the missile hazard area via DATA LINK. If LINK 11 is unavailable or unreliable, contacts will be reported using range and bearing from a shore facility TACAN designated by the OCE/RCO or by latitude/longitude.

(2) Provide surface SITREPS as required and at least every 15 minutes, and just prior to launch.

c. The OCE shall:

(1) Obtain E-2C services for Range Surveillance and LINK services.

(2) Ensure the target emitter is properly configured for the exercise including equipment and fuel to last the duration of the scheduled range time.

(3) Comply with HARM Range safety criteria.

NOTE: Although not required, Coast Guard helicopter services for range clearance assistance have proven to be advantageous in the past.

(4) Ensure an EA-6B or other suitable aircraft is available to confirm that the target emitter is operating within acceptable signal parameters.

(5) Ensure that the missile and all missile components are contained within the missile hazard area. Notification shall be given to the RCO if unable to comply with this requirement.

(6) Ensure the exercise area is confirmed to be clear of other emission sources that could be targeted by the HARM.

d. Safety Observer: the Safety Observer shall ensure the following conditions have been met prior to broadcasting CLEARED TO FIRE:

(1) The RCO has declared GREEN RANGE.

(2) No non-participating air or surface contacts are within or approaching the MHA.

(3) The firing unit is making a safe attack on the correct target.

412.4 PROCEDURES. HARM procedures in their entirety are beyond the scope of this manual. Advanced liaison with FACSFAC VACAPES is required in order to coordinate specific missile firing parameters, safety considerations, OPAREAS and surveillance. A detailed draft LOI shall be provided to FACSFAC VACAPES prior to the PRE-MISSILEX briefing.

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CHAPTER V

OCEANIC AIRSPACE COORDINATION (OAC) PROCEDURES

501 GENERAL. To provide general procedures for requesting an Altitude Reservation (ALTRV) within Oceanic/International Airspace and scheduling Stationary Oceanic Airspace Areas (SOAA) For detailed procedures see CINCLANTFLTINST 3120.26(Series), Chapter 7.

502 RESPONSIBILITY. All message requests for Oceanic Airspace should be addressed to FACSFAC VACAPES OCEANA VA//OAC// for coordination and approval. FACSFAC VACAPES OAC will schedule SOAAs and coordinate requests by Navy users for ALTRVs which lie within offshore controlled airspace and within the Oceanic Control Area (CTA)/Flight Information Region (FIR) east to the Azores, from Iceland south to Puerto Rico and the Gulf of Mexico. Requests for Warning Areas should be addressed to the appropriate scheduling agency in accordance with CINCLANTFLTINST 3120.26(Series). ALTRVs within 180 nautical miles of Bermuda should be addressed to FACSFAC VACAPES OAC.

503 ALTITUDE RESERVATION (ALTRV). A stationary ALTRV may be a box defined by latitude and longitude or a circle defined by radius in nautical miles around a latitude/longitude point or a track defined by a number of nautical miles (usually 10 NM) either side of a line between latitude/longitude points. It can be a single altitude or a block of altitudes. Although start and stop times are part of an ALTRV approval, a single flight should activate its ALTRV by radio while enroute (activate early if UHF/VHF communications will be lost due to distance) and deactivate the ALTRV when exiting. ALTRVs for exercises with multiple flights of aircraft or certain classified missions will be automatically activated, but the OCE of the exercise should notify FACSFAC VACAPES OAC if canceling the ALTRV. International Civil Aviation Organization (ICAO) aircraft are rerouted around ALTRVs so early cancellations reduce the impact upon the airspace system. Note that an ALTRV, though covered by NOTAM, does not prevent aircraft which are not on ICAO flight plans from entering the ALTRV. For security reasons all ALTRVs are given a name not associated with the user or type operation conducted.

504 OFFSHORE AIRSPACE. Offshore airspace is that airspace beginning at twelve nautical miles from the U.S. Coast and ending at the CTA/FIR boundary. Though it is International Airspace, FAA domestic Air Traffic Control (ATC) procedures apply. ALTRVs are required for all altitudes at or above 5,500 feet, north of 34N and at and above 2700 feet south of 34N.

505 OCEANIC AIRSPACE. Oceanic Airspace is that airspace within the CTA/FIR boundary. The base of controlled airspace for each CTA is noted on the appropriate FLIP chart (e.g., New York Oceanic 5,500 feet MSL; San Juan and Houston Oceanic 2,500 feet MSL and Miami 2,700 feet MSL). Below the base of the CTA is uncontrolled airspace. Flight clearances and airspace reservations are not available in uncontrolled airspace.

506 REQUEST FORMAT. Liaison by phone with the OAC prior to drafting the request is recommended. All requests for an ALTRV and SOAAs shall include the following information:

a. Requested altitudes (list minimum and maximum acceptable altitudes).

b. SOAA name or area (list latitudes/longitudes or radius in nautical miles of a latitude/longitude point or number of nautical miles (usually 10 NM) either side of a line between latitude/longitude points).

c. Times (ZULU only)

d. Point of Contact (POC):

(1) Name

(2) Command

(3) Phone Number

507 DUE REGARD/OPERATIONAL

a. OPNAVINST 3710.7(Series) stipulates that within offshore airspace and in the San Juan Domestic Control Area, Due Regard flights are authorized only for

emergencies or operational necessity. Operational necessity is defined as a mission which the consequences of an action justify accepting the risk of loss of aircraft and crew. Operations conducted under the Due Regard or Operational prerogative of military aircraft are subject to one or more of the following conditions:

(l) Aircraft shall be operated in VMC; or

(2) Aircraft shall be operated within radar surveillance and radio communications of a surface radar facility; or

(3) Aircraft shall be equipped with airborne radar that is sufficient to provide separation between themselves, aircraft they may be controlling and other aircraft; or

(4) Aircraft shall be operated outside controlled airspace.

b. The above conditions provide for a level of safety equivalent to that normally given by ICAO ATC agencies. Essentially, flight under the Due Regard or Operational option obligates the military aircraft commander to be his own ATC agency and to separate his aircraft from all other air traffic.

c. In accordance with CINCLANTFLTINST 3120.26(Series) FAA agencies shall not normally be advised of Due Regard flights except within 180 NM radius of Bermuda.

508 FACSFAC VACAPES OAC SOAA. FACSFAC VACAPES OAC has SOAAs which may be scheduled by name. If an SOAA does not fit the user's requirements, an ALTRV can be created to the user's specifications. Note that operations involving invisible hazards to aircraft may be scheduled in an adjacent area so strict compliance with boundary limits and adjustments for navigation error are essential. Military Assumes Responsibility for Separation of Aircraft (MARSA) is specified between adjacent areas. SOAA names and coordinates are as follows:

a. IBEX - 3941N 7115W, 3959N 6830W, 40N 67W, 39N 67W, 3820N 6957W, 3841N 7155W, 3907N 7153W

b. OAK ALPHA - 3907N 7153W, 3841N 7155W, 3820N 6957W, 3830N 69W, 37N 69W, 37N 7240W, 3715N 7240W, 3757N 73W, 3820N 7248W, 3846N 7230W

c. NOVEMBER - 40N 67W, 40N 66W, 37N 66W, 37N 69W, 3830N 69W, 39N 67W

d. OAK OSCAR - 36N 62W, 36N 66W, 40N 66W, 40N 62W

e. OAK BRAVO - 37N 7240W, 37N 70W, 35N 70W, 35N 7248W, 3506N 7240W

f. OAK CHARLIE - 33N 7543W, 35N 7248W, 35N 70W, 33N 70W

g. CIRCUS - 33N 7543W, 33N 73W, 30N 73W, 30N 76W, 3248N 76W

h. MANATEE - 29N 75W, 29N 72W, 26N 72W, 26N 75W

509 REPORT REQUIREMENTS FOR SOAAS. Information required by OPNAVINST 3770.2(series) must be supplied to FACSFAC VACAPES by the users. The information shall be reported to FACSFAC VACAPES OAC quarterly by 31 January, 30 April, 31 July and 31 October. The information required is as follows.

a. Aircraft Type

b. Maximum altitude used

c. Activities conducted (If CONFIDENTIAL omit)

d. Total number of aircraft

e. Date and number of hours used per scheduled times

Questions shall be directed to FACSFAC VACAPES OAC, DSN 433-1233, Comm. (757)433-1233.

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CHAPTER VI

CARRIER AIR WING FLY-OFF PROCEDURES

601 BACKGROUND. Historically, Carrier/Air Wing Fly-Offs have encountered numerous difficulties, both in the planning and actual fly-off stages. The following information is a step by step outline of the procedures promulgated in COMNAVAIRLANTINST 3100.1(Series) and CINCLANTFLTINST 3120.26(Series).

Proper coordination is always the key to a successful operation. Adherence to the procedures outlined, and dictated by COMNAVAIRLANTINST 3100.1(Series) and CINCLANTFLTINST 3120.26(Series) will greatly enhance fly-off efficiency and safety.

FACSFAC VACAPES is the aircraft carrier's single point of contact on all matters that require coordination with the FAA and/or Naval Air Stations. These evolutions can be, but are not limited to, safe-on-deck reports, filing of flight plans, ALTRVs and SUA reservations.

602 PLANNING STAGE

a. A Military Operations Specialist (MOS) must be requested by message in accordance with enclosure (1) of COMNAVAIRLANTINST 3100.1(Series). The MOS will be:

(1) Deployed to the Mediterranean or North Atlantic, the message is due six weeks prior to OUTCHOP.

(2) Operating Caribbean, the message is due three weeks prior to fly-off date.

As indicated in COMNAVAIRLANTINST 3100.1(Series), the MOS provided by the FACSFAC to carriers returning from deployments has proven most beneficial to the successful execution of Air Wing Fly-Offs. The MOS must be afforded the opportunity to help coordinate the fly-off into the National Airspace System (NAS).

b. A fly-off information message shall be sent a minimum of two weeks prior to the fly-off date. The format will be in accordance with enclosure (2) of

COMNAVAIRLANTINST 3100.1(Series). Include an ALTRV request if required.

(1) ALTRVs should include all routes of flight and sufficient area in the vicinity of the intended launch position to allow for join-ups and Planned Intended Movement (PIM) adjustments. Requested altitudes of FL260 and below are normally acceptable to the FAA. Requests for altitudes above FL260 heavily impact the National Airspace System (NAS) and should be made only after careful consideration of the operational necessity. The FAA can normally accommodate higher Oceanic Airspace altitudes from sunrise to 0800 local. Request Warning Area airspace in accordance with CINCLANTFLTINST 3120.26(Series). ALTRV requests within Warning Area airspace are inappropriate and should not be made.

(2) Mode III IFF codes are obtained from NORAD and assigned for the day of the fly-off only, unless specifically noted. Operational or weather deviations should be considered and possible alternate plans identified in the message. Codes are requested per paragraph 602.b. above.

c. A flight plan proposal message shall be transmitted five working days prior to the proposed fly-off date. The format will be in accordance with enclosure (3) of COMNAVAIRLANTINST 3100.1(Series). Flight plan proposal messages shall be <u>unclassified</u>. Classified information shall be transmitted by separate message.

(1) All appropriate FAA and DOD ATC Facilities should be listed as action addressees.

(2) Proposed route of flight should not penetrate Warning Area airspace due to the possibility of conflicting with hazardous operations. Route of flight should be through Atlantic Routes via appropriate IFR egress fixes (e.g., BACUS, TROUT, and SMELT).

(3) Aircraft departing the same egress point shall be separated by five minutes if at different altitudes or twenty minutes if at the same altitude. Aircraft speeds and types should be considered. Egress points are defined as the first fix on a published IFR

route and located on the perimeter of the ALTRV or, in the case of a fly-off initiated within a Warning Area, located on an airway.

(4) Include spare flight plans to facilitate late launched aircraft or aircraft unable to join with their assigned flight. Designate spare flight plans by utilizing distinctive call signs; i.e., two letters and two numbers vice two letters and three numbers.

(5) Aircraft entering MTR must be scheduled in accordance with DOD Flight Information Publication (FLIP) AP/1B. A proposed flight plan containing a MTR does not meet the scheduling requirements. MTR scheduling and flight plan filing are two separate flight planning functions. See paragraph 104.9 of Chapter I for MTR scheduling.

603 FLY-OFF

a. An E-2 for middleman services may be requested through COMCAEWINGLANT for units returning from overseas deployments.

b. Experience has shown that a sequential launch of aircraft by flight composition and proposed flight plan is most effective for major air wing fly-offs. A properly sequenced launch plan significantly reduces join-up time and the confusion involved in assigning call signs, flight plans and egress times after launch.

c. Pre-flight briefs should stress the following items:

(1) IFF Codes. Flight leaders should squawk assigned codes as soon as practicable after launch.

(2) Call Signs. Air crews shall use filed call signs at all times. Do not switch from filed call sign to squadron call sign and side number.

(3) Changes to Filed Flight Plans. Changes to filed flight plans should only be made if absolutely required for flight safety. Approved fly-off flight plans have been carefully considered as to their impact on the NAS and changes could seriously impair ATC's

ability to handle all flights expeditiously. Unless otherwise cleared by ATC, adhere to filed flight plans at all times.

(4) Egress Point Procedures. All flights shall depart the egress point at their assigned altitude and time. Aircraft shall not use the egress point for join-up, holding, or climbing or descending to enroute altitude. Proper separation between flights should be established prior to the egress point.

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CHAPTER VII

LARGE AREA TRACKING RANGE (LATR)

701 GENERAL INFORMATION. The Large Area Tracking Range (LATR) is a Global Positioning System (GPS) based tracking system in the VACAPES OPAREAs that allows simultaneous tracking of up to 124 instrumented ships, aircraft, amphibious assault and ground vehicles within approximately 500 NM of Bodie Island, NC. This tracking system supports and can debrief all phases of training from unit level single warfare area training to Joint Task Force/Carrier Battle Group/Amphibious Ready Group (JTF/CVBG/ARG) advanced exercises.

701.1 CHARACTERISTICS

a. Capabilities. LATR provides the following capabilities to FACSFAC VACAPES:

(1) Tracking capability with better accuracy than LINK 11.

(2) Tracking ranges beyond the reliable ranges of LINK 11.

(3) Three remote display and debrief sites where exercise planners, commanders or participants can view debrief materials either during or shortly after completion of an exercise.

(4) Shipboard debriefs via SIPRNET, allowing debriefs at sea. Provides true "Hot Wash-up" capability to embarked commanders while the exercise is fresh in the participants' minds.

(5) Analog weapons release triggers and 1553/1760 weapons systems bus data can be down-linked from appropriately configured LATR instrumented aircraft.

(6) T1 line connectivity between shore sites configured for LATR display and debriefs provides high data quality, high data rates and reliability.

b. Coverage. LATR system coverage is VHF line of sight, surface to 70,000 feet. Range can be extended beyond line of sight distance using LATR's automatic relay of tracking signals from distant participants to the Ground Interrogation Station (GIS). This function is an automatic feature of every LATR Participant Instrumentation Package (PIP) and requires no operator action or intervention. Aircraft operating in FACSFAC VACAPES OPAREAs will not require relay at the edge of the LATR coverage if above approximately 40,000 feet. By using the maximum three relays, LATR has the capability to provide instrumented coverage up to 500 NM which would allow coverage for operations in:

Southern

W-105	W-106	W-107
W-108	W-110	W-386
W-387	W-72	W-122
W-177	W-161	W-132
W-133	W-134	W-157
W-158	W-159	

Oceanic Areas within 500 NM of Bodie Island, NC.

c. Appendix D list list aircraft approved for LATR carriage.

701.2 MAJOR EQUIPMENT. The major components of LATR are the LATR Tracking System (LTS) and LATR Computer and Debrief System (LCDS).

a. LATR Tracking System (LTS). The tracking system consists of Ground Elements and Participant Elements:

(1) The LTS Ground Elements include the Ground Interrogation Station(GIS), the Data Link Controller (DLC) and the Null Security Module (NSM). The GIS is an unmanned site remotely located at Bodie Island which performs all participant interrogations. Coupled with redundant processing equipment groups and a reference GPS receiver, PIP information is data-linked to the Range Operations Control Center (ROCC) located at FACSFAC VACAPES.

(2) Aircraft Instrumentation Package, Fixed Wing,(AIP-FW): An external AIM-9 sized and weighted pod which mounts onto various high-performance fixed wing aircraft. AIP-FW has a high dynamic Time-Space-Position Information(TSPI)unit, which interfaces to the aircraft 1553/1760 bus, and collects discrete and analog weapons release signals, such as air-to-air weapons and mine/bomb trigger pulses.

(3) Aircraft Instrumentation Package, Fixed Wing, Internal (AIP-FWI): An F/A-18, and E-2C specific package designed to mount internally and uses the aircraft bus for all data collection and transmission including TSPI.

(4) Aircraft Instrumentation Package, Rotary Wing (AIP-RW): Mounts inside the helicopter and provides TSPI data. (Requires additional external antenna to be installed for LATR operations).

(5) Ship Instrumentation Package(SIP): Mounts topside on ships and provides TSPI data.

b. LATR Computer Debrief System (LCDS). The LCDS is composed of the LATR ROCC Work-station System (LRWS), the LATR Debrief Communication System (LDCS) and LATR Debrief Training System (LDTS). LRWS is the central LATR computer suite for acquiring, processing and displaying exercise data. Inputs to the LRWS consist of TSPI, weapons, audio event, time and interactive operator inputs to support warfare training scenarios. The LRWS provides the means to perform exercise set-up of the LATR Tracking System (LTS) as well as mission data and control over data processing and output/display. The LDCS is the communication equipment which bridges the LRWS to the LDTS on land and afloat. It consists of wide-area network routing equipment, cryptographic equipment, and modem/line driver equipment. For communications with ships, SIPRNET services are available to link ship and shore through the Land-Earth Station. The land-based LDTSs are remote work-stations which can perform real-time monitoring, centralized debrief or autonomous debrief. The function and operation of the LDTS is nearly identical to that of LRWS. With the installation of Version 2 software upgrade, LATR is now capable of

displaying TACTS and LATR information on the same display. This includes TACTS threat emitters, weapons fly-out and no-drop bomb scoring.

701.3 OPERATIONS

a. Scheduling. Major events requiring LATR services should be scheduled via the CINCLANTFLT quarterly scheduling conference. LATR services can be requested for smaller unit level evolutions with less lead time on a case by case basis via the regular FACSFAC VACAPES schedule request format (see Chapter III).

b. Operating Hours. Normal operating hours for LATR will be 0800 to 1700(L), Monday through Friday (excluding national holidays). After hours exercises and 24 hour-a-day data collection/analysis for indefinite periods will be supported with advance notice.

c. Pre-Exercise Planning. Due to the enormous amount of data that can be generated in a large scale LATR instrumented exercise, face-to-face meetings with LATR operators during planning and pre-exercise preparation is desirable in order to ensure the most rapid turn around and highest quality debrief product.

d. Air Operations. Aircraft squadrons or other scheduling authorities wishing to use LATR to supplement their training while flying in the OPAREAs should request blocks of time for LATR PIPs at least five working days before the planned sortie. For local squadrons, scheduling of LATR may be done at the weekly TACTS/LATR scheduling conference held each Wednesday at Bldg. 310, NAS Oceana. At least three working days prior to the sortie provide FACSFAC VACAPES with exact sortie times, aircraft types, side numbers and desired debrief products in accordance with the Services Request Message format provided in Appendix E. Notify FACSFAC VACAPES of any changes to this information as soon as possible prior to the sortie. PIPs to support these sorties will be provided to squadrons by FACSFAC VACAPES the day before the sortie for installation by squadron maintenance personnel. PIPs to support an out of area unit will require additional installation time. Contact FACSFAC VACAPES for coordination of out of area PIP delivery as

soon as information regarding ship location and delivery details are known.

e. Surface Operations. As with aircraft operations (above), surface units that wish to use LATR to supplement their training during smaller exercises and operations may request LATR SIPs. The initial request should arrive at FACSFAC VACAPES at least five working days prior to the underway period during which LATR will be used. At least three working days prior to the underway period, requester should specify exact times for LATR data collection and desired debrief products using the Services Request Message format provided in Appendix E. Notify FACSFAC VACAPES of changes to original request and any out of area SIP installation requirements.

f. Priority System. In cases where the limited number of PIPs does not allow instrumentation of all LATR requesters, FACSFAC VACAPES will provide LATR services based upon the CINCLANTFLT Priority System (Appendix F).

701.4 PIP MANAGEMENT. FACSFAC VACAPES is responsible for scheduling, maintaining and delivering LATR PIPs. Aircraft squadron maintenance/ordnance personnel will be responsible for installing LATR PIPs in/on aircraft once the PIPs are made available for pick-up by the squadron. FACSFAC VACAPES will provide qualified contractor personnel to install SIPs on surface ships, landing craft and amphibious vehicles.

702 DEBRIEF PRODUCTS

702.1 DEBRIEFS. Debriefs can be provided to customers at the ROCC (FACSFAC VACAPES), at a remote LDTS site, at any site that has T-1 or SIPRNET capability and a TAC-3 computer configured with LATR software or in person by a FACSFAC VACAPES representative aboard ship upon return to port. Several debrief levels/types are available, depending on whether the debrief is targeted to watchstanders, a ship's wardroom or a group of exercise planners. The content of the debrief is dependent upon the training objectives of the exercise.

a. Replay. Replay is a dynamic display of collected data at the force or unit level used for self assessment.

This mode has the advantage of being available very quickly, but may offer less debrief information due to automatic system data and rate filtering. Replay can be a valuable tool for ship's training teams and squadron trainers by providing rapid feedback to participants while the exercise is ongoing. Archiving data in real time is the preferred method for remote LDTS sites to collect data for replay. Data files are then available for quick replay.

b. Reconstruction. Reconstruction consists of dynamic displays and summary hard copy products which depict actual exercise results at unit and force levels. Reconstruction includes correlation of events (detections, firings, etc.) to participant tracks. Reconstruction is a more detailed product than a simple exercise replay, therefore, it requires more time to produce. The LATR operator will be able to reconstruct most exercise events within one hour after mission completion. Larger and more complex exercise scenarios may take longer depending upon the scope of data to be reconstructed.

c. Exercise Analysis. LATR products provide detailed data, as pre-tasked, to support analytical and umpire functions. Fleet Exercise representatives/coordinators are responsible for analysis functions and are welcome to observe LATR operations at the ROCC.

d. Debrief Products. A variety of LATR debrief products are available. The LRWS and LDTS computers provide geographic, graphical, textual and Battle Group displays The geographic displays show spatial relationships between participants and can be range scaled and view selectable (3-D, Mercator, Orthogonal or pilot’s view). Graphical displays show engineering parametric data for participants graphically plotted for either cross-plot or time-history. Textual displays show event and engineering parametric data in spreadsheet or textual formats to include time-event, sensor-weapon, engineering flight or engineering tactical displays. Battle Group displays show summary data for participants, textually and graphically, plotted with time-event, engagement and engagement range summaries. All downlinked data items can be filtered by the ROCC LRWS

operator for specific participant relevancy and quickest possible transmission rate. Downlinked data can then be archived at the debrief site and displayed by the LDTS operator.

A typical debrief package for a single participant would include, but not be limited to: own ship's track, range/bearing to other LATR podded participants, and a full range of track data on all podded participants. With this data, a geographic view can be displayed showing the three participants and all inter-relationships between them. Information can be computed and displayed in graphical and spreadsheet formats. A complete record of operation data is archived at the ROCC for future playback and historical reference. Coordination with FACSFAC VACAPES during exercise planning to tailor the post-exercise debrief products is critical due to the volume of data available. Any organization with SIPRNET access and compatible TAC 3/4 computer an obtain remote debrief capability by request through Commanding Officer, FACSFAC VACAPES.

(1) At Sea Debrief. Selected ships will have a shipboard debrief capability LATR debriefs displayed on JMCIS via SIPRNET. CV's and command ships will have the added option of real time exercise monitoring via a 56 Kbps INMARSAT/JMCIS debrief module.

(2) Remote Debrief. Remote debrief LDTS sites are located at Camp LeJeune, Cherry Point, N.C. and TACTRAGRULANT Dam Neck, V.A. Additionally, LATR has expanded remote debrief locations to include NSWC Dam Neck, TACTS Oceana and MCAS New River, N.C.

(3) LATR Operator Training for Remote Debrief Sites. For remote sites possessing LDTS contract operators will be made available by Commanding Officer FACSFAC VACAPES to conduct training on the system. The Standard course of instruction should take two days and include 10 hours of class room instruction and 6 hours of operator hands-on training. It is recommended that Commands possessing LDTS should maintain at least three trained operators to accommodate 24 hour operations.

702.2 COMMUNICATIONS

a. Recorded Communications. The LATR LCDS is capable of monitoring one and recording up to four selectable UHF/VHF/HF communications circuits for audio overlay of selected debrief products. These communications circuits are important for the LATR operators to monitor the progress of an event and manually annotate, when necessary, the collected data.

b. LATR Coordination Circuit. LATR exercises/events should have at least one circuit available for communications between the LATR ROCC and participants. This circuit will provide a means for the participant to inform the LATR operator of last minute changes in PIP assignment, weapon load-out information, mission changes or other pertinent exercise data. Coordination frequency will be included in the FACSFAC VACAPES Opsked for exercises utilizing LATR.

703 INSTRUMENTATION

703.1 Installation. FACSFAC VACAPES representatives will coordinate PIP installations. AIP-FWI, AIP-FW, AIP-RW, and SIPs are available. Both AIP-FWs and AIP-FWIs will be available for assignment to squadrons at NAS Oceana conducting operations lasting several days or weeks. CVBGs and ARGs will be issued a variety of PIPs when they conduct intermediate and advanced at sea training as coordinated with the LATR operators during the planning phase. When at sea, ship and squadron personnel will be responsible for loading AIP-FWs, AIP-FWIs and AIP-RWs and providing package IDs and aircraft assignment to the ROCC for range tracking. FACSFAC VACAPES representatives will install SIPs aboard surface vessels. Ships from outside of the VACAPES area can either have SIPs installed locally (Norfolk and Little Creek) or coordinate with FACSFAC VACAPES for an out-of-area (Norfolk)installation.

704 LATR USE IN THE INTERDEPLOYMENT TRAINING CYCLE (IDTC)

. LATR can provide tracking options during all phases of the interdeployment training cycle. While the greatest benefit is realized in CVBG/ARG work-up situations, LATR can provide valuable ground truth and feedback for smaller exercises during basic, intermediate Tier 1 and Tier 2 training scenarios.

704.1 Basic Level Training. LATR can provide a rapid replay of events for ships and aircraft conducting basic training events. Selected exercises include but are not limited to:

AW
SUW
AMW
USW
MIW

704.2 Intermediate Training. LATR will enable a greatly expanded rapid replays of training and unit/Immediate Senior in Charge (ISIC) self assessment of complex events. Relevant replay detail in each exercise is contingent upon the availability and number/types of PIP's dedicated to the event.

a. CVBG. LATR can provide a means to evaluate a marshall or tanking plan for the CVBG early in the intermediate training, USW/surface warfare search plan and complex strikes afloat and/or ashore within the LATR coverage area. LATR information can be relayed to the CV to debrief overland training flights shortly after the aircraft's return to the CV for squadron/CAG evaluation, as well as pilot self assessment. This information can be used to modify and fine tune training to obtain maximum benefit.

b. Littoral Warfare. LATR can supplement ARG and CVBG warfare exercises to provide greatly enhanced replay, debrief and post exercise review. LATR has been found to be instrumental in reconstruction of amphibious operations by tracking the ship to shore craft, assault helicopters and CAS aircraft and assault vehicles.

c. USWPT. LATR can provide USW training for VP/VS/HS and ships.

d. Independent Deployer and Middle East Force Training. LATR can provide rapid debrief products for ships and assessing DESRON to evaluate search and prosecution plans, air control procedures, straits transit plans and small boat defense.

704.3 Advanced Training. Similar to intermediate training in information gathering/training range use, the primary difference is the use of dedicated opposition forces and COMSECONDFLT participation as higher authority and Battle Group evaluator. Exercises are scenario driven and less structured with regard to specific exercise phases. PIP management is critical during these exercises and close coordination with FACSFAC VACAPES is required throughout the exercise to maximize the data collection effort. LATR can provide tailored debrief products for specific warfare area assessments.

704.4 Missile Firing Exercises. Currently LATR does not have the capability to instrument targets or missiles. LATR can, however, provide differential GPS accuracy tracking of simulated missile profiles flown by tactical aircraft and contract LEARs as well as Septars for surface threat assessment.

704.5 Training Database and Pre-Training Reviews. Previously archived LATR data can be used to review training procedures prior to any phase of training. A replay of archived events conducted by the training groups during past TSTA, MEFEX or JTFX can provide a good preview of coming events. Successes and mistakes can provide valuable lessons learned before the exercise takes place. This capability will provide TACTRAGRU's and Warfare Schools with a significant tool for use in the training environment.

705 LATR REQUIREMENTS. To request LATR services, fleet units should specify basic information in para c.6 of the normal OPAREA request message. A sample format is found at appendix E.

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APPENDIX A

FACSFAC VACAPES TARGET SUMMARY

RANGE	R-5301	R-5302	R-5313	R-5314	R-6606/W50 D-334.390 DAMNECK
LOCATION	ALBEMARLE SOUND, NC SEE APPX. B	ALBEMARLE SOUND, NC SEE APPX. B	PAMLICO SOUND SEE APPX. B	DARE COUNTY NC. SEE APPX. B FOR COORD	VA BEACH 36-46N 75-56W
HOURS OF DAY	CONT	AS SKED BY NOTAM	0800-2300L MON-FRI OTHER TIMES BY NOTAM 24 HRS IN ADV	NORM MANNED: 0800-2330L MON-THUR 0800-1600L OTHER TIMES /DAYS SKED BY FACSFAC	LIMITED HRS AS SKED LCL
DAYS OF WEEK	CONT	CONT			MON-FRI
WEATHER	VFR-IFR	VFR 1,500 FT - 5 MI	VFR 1,500 FT - 5 MI	VFR-IFR	VFR 1,500 FT - 5 MI
EFFECTIVE ALITUDE	TO 14,000 FT	TO 14,000FT	VARIOUS-SEE MANUAL	VARIOUS SEE MANUAL	TO 51,000 FT
ORDNANCE*	VARIOUS IF USED ORDNANCE	MINI TO 100 LB INERT BOMBS, RKT TO 5” SMOKE, NO STRAFE	MINI & INERT BOMBS, SHAPES, TRNG RKTS TO & INCLUDE 5” SMOKE INERT, PHOSPHOROUS, FLARES, PHOSPHOROUS PHOTOFLASH, NO STRAFE	ANY SIZE INERT BOMB OR TRNG SHAPE, INERT RKTS THRU 5”, STRAFE	MINI MK-76/ 106 & FFAR UP TO AND INCLUDE 2.75 RKTS, NO STRAFE
FREQUENCIES	HARVEY POINT 135.975 Mhz DURING EXER	PALMETTO 342.6/358.8 MHz	STUMPY PT 358.8/320.2 MHz	NAVY DARE 358.8/320.2 MHz	GIANT KILLER CONT 233.7/ 350.0 MHz
REMARKS	SKED FACSFAC VACAPES 433-1221/1222	SKED FACSFAC VACAPES 433-1221/1222	SKED FACSFAC VACAPES 433-1221/1222	SKED FACSFAC VACAPES 433-1221/1222	OPAREA SKEDS 433-1218/1299/ 1216

*** ALL INERT UNLESS “LIVE” SPECIFIED**

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APPENDIX B

AIRSPACE AND TARGET BOUNDARIES

1. Dare County restricted area R-5314 airspace boundaries and airspace limits are as follows:

SUB-AREA	COORDINATES	ALTITUDE
A	35-46N 075-49W 35-40N 075-50W 35-42N 076-00W 35-47N 075-59W	SURFACE TO FL205
B	35-40N 075-46W 35-35N 075-46W 35-37N 076-01W	500' AGL TO FL205
C	35-49N 075-44W 35-45N 075-45W 35-47N 075-59W 35-52N 075-58W 35-50N 075-45W	500' AGL TO FL205
D	35-41N 075-52W 35-39N 075-53W 35-39N 075-55W 35-41N 075-54W	SURFACE TO FL205
E	35-48N 075-49W 35-46N 075-49W 35-46N 075-53W 35-48N 075-52W	SURFACE TO FL205
F	35-45N 075-45W 35-40N 075-46W 35-40N 075-50W 35-46N 075-49W	500' AGL TO FL205
G	35-53N 075-58W 35-39N 076-01W 35-39N 076-05W 35-52N 076-02W	200'AGL TO 15,000' MSL
H	35-52N 076-02W 35-39N 076-05W 35-40N 076-12W 35-52N 076-10W	1,000' AGL TO 6,000' MSL

J	35-52N 076-10W 35-40N 076-12W 35-44N 076-35W 35-54N 076-33W	1,000' AGL TO 6,000' MSL

2. Stumpy Point restricted area R-5313 airspace boundaries and airspace limits are as follows:

SUB-AREA	COORDINATES	ALTITUDE
A	3 STATUE MILE RADIUS CNTR AT 35-33N 075-41W	SURF TO 18,000'
B	35-37N 075-41W 35-31N 075-35W 35-24N 075-40W 35-31N 075-51W	.100' AGL TO 13,000'
C	35-32N 075-34W 35-31N 075-35W 35-37N 075-41W 35-38N 075-39W THEN CW ON A 6 NM ARC CNTR AT 35-33N 75-41W	500' AGL TO 13,000'
D	35-21N 75-43W 35-24N 75-40W 35-31N 75-51W 35-28N 75-55W THEN CCW ON A 12 NM ARC CNTR AT 35-33N 75-41W	500' AGL TO 13,000'

3. Palmetto Point restricted area R-5302 airspace boundaries and airspace limits are as follows:

SUB-AREA	COORDINATES	ALTITUDE
A	36-01N 76-15W 36-02N 76-07W 36-00N 76-07W 36-00N 76-15W	SURF TO 14,000'

B	36-05N 76-17W 36-04N 76-06W 36-00N 76-06W 36-00N 76-13W 36-00N 76-24W THEN CW ON A 4 NM ARC CNTR ON 36-02N 76-20W 36-04N 76-24W	100' AGL TO 14,000'
C	36-05N 76-13W 35-59N 76-17W THEN CW ON A 4 NM ARC CNTR ON 36-02N 76-20W	100' AGL TO 3,000'

4. Harvey Point restricted area R-5301 airspace boundaries and airspace limits are as follows:

AREA	COORDINATES	ALTITUDE
R-5301	36-05N 76-17W 36-04N 76-21W 36-07N 76-21W THEN CW ON A 3 NM ARC CNTR ON 36-04N 76-20W	SURF TO 14,000'

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APPENDIX C

BIBLIOGRAPHY

FACSFACVACAPESINST C8800.1(Series) - Manual on Range Safety Criteria for missile exercises conducted in FACSFAC VACAPES Operating Areas.

OPNAVINST 3100.5 - Navy Operating Area and Utilization of the Continental Shelf.

OPNAVINST 3710.7 - NATOPS General Flight and Operating Instruction.

OPNAVINST 3710.18 - Instruction Concerning Unmanned Rockets.

OPNAVINST 3722.5 - Identification and Security Control of Military Aircraft.

OPNAVINST 3722.33 - FAA Handbook for Special Military Operations.

OPNAVINST 3770.2 - Airspace Procedures Manual.

CINCLANTFLTINST 3120.26 - Atlantic Fleet Operating Areas and Warning Areas.

CINCLANTFLTINST 3560.1 - Atlantic Fleet OPAREA Tactical Data System (TDS) Link Manual.

CINCLANTFLTINST 5400.2 - U.S. Atlantic Fleet Regulations.

CINCLANTFLT OPORDER 2000-86 - Provides Guidance to 2nd Fleet Commands on Maintaining a Fleet Ready for Immediate Deployment to Combat Areas in case of war; Fleet Operations will be governed by this order.

COMNAVAIRLANTINST 3100.1 - Aircraft Carrier Pre-Sail and Air Wing Fly-Off Requirements.

COMNAVAIRLANTINST 8011.3 - Training Ordnance Requirements.

COMNAVAIRLANTINST 8840.1 - BQM 74/Seaborne Powered Target (SEPTAR) Services.

COMNAVAIRLANTINST 8840.2 - Aerial and Seaborne Target Program.

COMFITWINGONEINST 3600.1 - Provides Procedures Concerning FACSFAC VACAPES Missile Firing Exercises.

COMPACMISTESTCEN - Range Safety Policy of Pacific Missile Test Center.

COMPACMISTESTCEN HARPOON - Provides Specifications and Procedures for firing of Harpoon Missile.

FAR 91.127 - FAA Regulations - Policy and Procedures for Civilian/Military Operations.

FXP-2 - AAW Exercise - Fleet Exercise Publication. For FACSFAC VACAPES mainly, pertains to surface-to-air firings. Ships requiring qualification or re-qualification on certain weapons systems normally comply with guidelines of the FXP-2. Also, used by Commercial Air Services (Flight International to provide users specific flight profiles during training or threat simulation exercises.

NASOCEANAINST 3710.1 - Air Operations Manual.

COMFEWSGINST C3120.1 - Airborne Electronic Warfare Training Missions Planning Factors and Scheduling Procedures.

APPENDIX D

SERVICES AND CAPABILITIES

1. LEAR JET

PROVIDER: Current CAS contractor. Request service through FACSFAC VACAPES: DSN 433-1219, Comm (757) 433-1218/9.

MAX SPEED: Mach 78
MAX ALTITUDE: 45,000 feet
MAX ON STATION TIME: up to 2.0 to 4.0 hours, depending on model.
AVAILABLE SIF/IFF MODES: 3C only.
RADAR: Weather only (I band, 9345 MHz, PRF 99 Hz PW 3.5 msec.
COMM/NAV: UHF, VHF, TACAN
MISSIONS: AIC, TRACKEX, GUNEX, ASCM simulation, Hayes target towing, long range DTE LATR relay and C2W/EW missions.

NOTES:
1. PRE-EX required for units without a Letter of Agreement with FACSFAC VACAPES.

2. Available outside FACSFAC VACAPES OPAREAS.

3. certification granted to carry LATR pid.

2. CHEYENNE (TURBOPROP)

PROVIDER: Current CAS contractor. Request service through FACSFAC VACAPES: DSN 433-1219, Comm (757)433-1218/9.
MAX SPEED: 250 KTAS
MAX ALTITUDE: 25,000 feet
MAX ON STATION TIME: 3.5 hours
AVAILABLE SIF/IFF MODES: 3C
RADAR: Weather only (same as LEAR jet)
COMM/NAV: VHF, UHF
MISSIONS: ASAC, trackex, ASCM simulation, AIC

NOTES: 1. PRE-EX required for units without a Letter of Agreement with FACSFAC VACAPES.

2. Available outside FACSFAC VACAPES OPAREAS.

3. certification granted to carry LATR pid.

3. HELICOPTERS (H-3, H-46, H-53)

PROVIDER (H-3): Oceana SAR, NAS Oceana VA: DSN 433-3377, Comm (757) 433-3377
MISSION: Photo

PROVIDER (H-46): COMHELTACWINGLANT, NORFOLK VA: DSN 564-1846, Comm (757) 444-1846.
MISSION: Drone Recovery, Photo.

4. VF AND VAW AIRCRAFT SERVICES

PROVIDER: COMNAVAIRLANT NORFOLK VA: DSN 433-3410, Comm (757) 433-3410
ACFT AVAIL: F-14, E-2, F/A-18
MISSIONS (F-14, F/A-18): CAP, AIC, LINK 4A
ADDRESSEES: COMFITWINGLANT NAS OCEANA VA
COMNAVAIRLANT NORFOLK VA
MISSIONS (E-2): Air and surface surveillance, LINK, NESTOR
ADDRESSEES: COMAEWWING TWELVE NORFOLK VA
COMNAVAIRLANT NORFOLK VA

NOTES: 1. Fleet aircraft service should be requested at the Quarterly Scheduling Conference.

2. LATR configuration for VF only.

5. QST-33/35 SEPTARS

ALLOCATION SOURCE: COMNAVAIRLANT (AIR-TO-SURFACE)
COMSECONDFLT (SURFACE-TO-SURFACE)
PROVIDER: FLECOMPRON SIX, NORFOLK VA: DSN 564-6793/4575 Comm (757) 444-4575/6793
MAX SPEED: QST-33: 30 KTS, QST-35: 35 KTS
MAX ON STATION TIME: 4-7 Hours, depending on speed
EQUIPMENT AVAILABLE: Reflector

MISSIONS: MED/HIGH SPEED GUNNERY; "KOMAR" Simulation; Bombing
LENGTH: QST-33: 18 feet, QST-35: 55 feet

NOTES: 1. SEPTAR requires control boat.

2. PRE-EX required.

3. Lead time from allocation to expenditure is two weeks prior to event.

4. certification granted to carry LATR pid.

6. BQM-74 DRONES

ALLOCATION SOURCE: COMNAVAIRLANT (AIR-TO-AIR)
COMSECONDFLT (SURFACE-TO-AIR)
PROVIDER: FLECOMPRON SIX: DSN 564-4575/6793, Comm (757)444-4575/6793
MAX SEA STATE FOR LAUNCH: 3

NOTES: 1. Shipboard detachment can provide up to four drones per day.

2. LOI required.

3. Lead time from allocation to expenditure is:

a. Launch from Dam Neck, VA - two weeks prior to event.

b. Launches from ships or places other than Dam Neck VA - 20 days.

c. Launches from locations outside CONUS - six weeks.

7. TACTICAL AIR LAUNCH DECOY (TALD) AS TARGET

ALLOCATION SOURCE: COMNAVAIRLANT (air-to-air)
COMSECONDFLT (surface-to-air)
PROVIDER: Fleet squadron with TALD training allocation

NOTES: 1. LOI required.

2. Missile exercise procedures to be complied with.

3. Lead time from allocation to be expenditure: Two weeks minimum.

8. HAYES TARGETS

PROVIDER: Current CAS contractor. Request through FACSFAC VACAPES: DSN 433-1218, Comm (757) 433-1218.
TYPE: Towed and augmented targets in three types:
1. TPT - Plume Augmented Infrared Tow Target. Designed to influence the 76mm IR fuzed round from MK 75 gun system.

2. TRX - Radar Augmented Tow Target similar to Navy TDU.

NOTES: 1. Available outside FACSFAC VACAPES OPAREAS.

2. PRE-EX/LOI required as appropriate.

9. C2W/EW SERVICES

PROVIDER: FLTINFOWARCEN NORFOLK VA//31//
DSN 537-4061, Comm (757) 417-4061

NOTES: 1. Assets must be requested at the CINCLANTFLT quarterly planning conference.

2. PRE-EX required.

3. Available outside FACSFAC VACAPES OPAREAS.

10. LEAR JET EW SERVICES

PROVIDER: Current CAS Contractor. Request service through FLTINFOWARCEN: DSN 537-4061, Comm (757) 417-4061, and FACSFAC VACAPES: DSN 433-1286, Comm (757) 433-1286
MAX SPEED: Mach 78
MAX ALTITUDE: 45,000 feet

MAX ON STATION TIME: 2.0 hours
AVAILABLE IFF/SIF CODES: 3C only
RADAR: Weather only (I Band, 9345 MHz, PRF 99 Hz, PW 3.5 msec)
COMM/NAV: UHF, VHF, TACAN
MISSIONS: EW services include interim EW noise/jamming services with a deception capability

NOTES: 1. Services can be requested for all East Coast, Gulf of Mexico and Puerto Rico OPAREAS.

2. Pre-exercise messages are required a minimum of 48 hours prior to the event to facilitate equipment adjustment and pilot briefing. See paragraph 312 for pre-exercise message format.

3. Certification granted to carry LATR pid.

11. OTHER SERVICES AVAILABLE

a. TACAN CERTIFICATION: FAA Atlantic City provides aircraft for services north of 36°30'00" N: DSN 234-3478, Comm (609) 484-4606/ 08/09/11. FAA Atlanta provides aircraft south of 36°30'00" N: DSN 431-3950, Comm (404) 699-9287. Ships shall request airspace clearance from FACSFAC VACAPES.

b. ULM-4 RANGE: SESEF provides (IAW CINCLANTFLTINST S3430.11C): DSN 438-7624, Comm (757) 425-1094/1797.

c. P-3 SERVICES: CINCLANTFLT provides (FACSFAC VACAPES, COMNAVAIRLANT, CTF-26 shall be info addressees on msg request.) DSN 564-3129, Comm (757) 444-3129.

d. LOGISTICS SUPPORT SERVICES: COMTACSUPWING ONE provides, DSN 564-7751, Comm (757) 444-7751.

e. SKQ-3 TELEMETRY SUPPORT SERVICES: NAVSEACENLANT Portsmouth VA provides: DSN 961-6363/6213, Comm (757) 485-6363/6213.

12. Tactical aircraft certified for LATR carriage:

F-14A/B/D SH-2F/G

F/A-18A/B/C/D
S-3B
EA-6B
AV-8B
ES-3A
P-3C
AH-1W
LEAR JET
CHEYENNE
EP-3J
SH-3
CH-46
CH-53E
SH-60B/F
MH-53H

APPENDIX E

EXAMPLE REQUEST MESSAGE

```
FM USS BARNACLE
TO FACSFAC VACAPES OCEANA VA//24//  SCHEDULES
                            //OAC// ALTRV REQUEST
                            //23//  AREA COORDINATORS
                            //22//  ATC
*** THE FOLLOWING ADDRESSEES ARE REQUIRED AS APPROPRIATE FOR
LISTED SERVICES AND/OR OPAREA USAGE//

COMNAVAIRLANT NORFOLK VA//N8/N83/N83G// FOR FLEET AIRCRAFT SVCS
FLTINFOWARCEN NORFOLK VA//31//          FOR EA-6A, EP-3,
                                        NKC-135, EC-124 SVCS
FLECOMPRON SIX//020//                   FOR BQM-74C/SEPTAR SVCS
COMNAVSURFLANT NORFOLK VA //N32/N33//   FOR TARGET SLED SVCS
NAS OCEANA VA//302//                    FOR ATC
COMHELTACWING ONE NORFOLK VA//N3//      FOR H-46,CH-53,SH-3 SVCS
COMHSLWINGLANT MAYPORT FL//N3//         FOR SH-60 SVCS
FACSFAC JACKSONVILLE FL//31//           FOR JAXOA/CHASOA USAGE
NAS KEY WEST FL//3023//                 FOR KWOA USAGE
FACSFAC PENSACOLA FL//502//             FOR PNCLOA USAGE
363FW SHAW AFB SC//DOOS//               FOR W-161/W-177 USAGE

INFO COMNAVSURFLANT NORFOLK VA//N3/N31//
COMFITWING ONE OCEANA VA//30//          INFO ADDEE FOR F-14/F-18
                                        SVCS
COMCAEWWING TWELVE NORFOLK VA//20//     INFO ADDEE FOR E-2 SVCS
COMSUBGRU TWO                           SEAC NBOA/ACOA
COMSUBLANT NORFOLK VA//N3//             SEAC VCOA/PXOA/CPOA
IMMEDIATE UNIT COMMANDERS AS APPROPRIATE

UNCLAS//N03120//
MSGID/GENADMIN/USS BARNACLE//
SUBJ/OPAREA CLNC/SVCS REQUEST VCOA/PXOA/NBOA/ACOA/CPOA//
     (OPAREA AS APPROPRIATE)
REF/A/DOC/CINCLANTFLT/DDMMMYY//
REF/B/DOC/FACSFAC VACAPES/DDMMMYY//
NARR/REF A IS CINCLANTFLTINST 3120.26(Series).  REF B IS
FACSFACVACAPESINST 3120.1(Series)//

RMKS/1. IAW REFS A AND B, REQ FOL:
```

A. USS BARNACLE

B. LTJG JONES, OSC SMITH, DSN AND COMM PHONE NUMBERS (NOTE 1)
INMARSAT (IF DEPLOYED)

C. 1. 121400-1600Z JAN 97, 151300-1500Z JAN 97 (NOTE 2)
2. 28/SURF-5,000 FEET
3. PACFIRE 5 IN/8-1
4. NONE
5. FLEXIBLE TWO HOURS EITHER SIDE OF REQUESTED TIME PERIOD.
6. LATR INSTRUMENTATION (IF REQUIRED) (NOTE 3)
A. NUMBER AND TYPE OF PIPS REQUIRED
B. UNITS TO BE INSTRUMENTED
C. LOCATION/TIME FOR PIP INSTALL
D. LOCATION/TIME OF PIP REMOVAL
E. COMM CIRCUITS FOR DATA COLLECTION COORDINATION
F. COMM CIRCUITS DESIRED TO BE RECORDED FOR DEBRIEF
G. TIMES OF EVENTS DESIRED TO BE RECORDED/DEBRIEFED
H. DEBRIEF PRODUCTS REQUIRED
I. DEBRIEF METHOD/LOCATION/DATE/TIME DESIRED
J. INMARSAT/JMCIS CAPABILITY (IF SHIPBOARD DEBRIEF DESIRED)
K. ADDITIONAL REMARKS CONCERNING LATR (IF REQUIRED)

D. 1. 131200-1400Z JAN 97 (PRIMARY) (NOTE 4)
141200-1400Z JAN 97 (BACK-UP)
2. 14, 15, 21AB, 22AB (SURF-UNLIMITED)
3. MISSILEX/8-1
4. LEAR WITH TRX
5. REQUEST PRE-MSLX BRIEF AT FFVC ON 07 JAN 97. SECURITY CLEARANCE BY SEPCOR.

E. 1. 151600-2100Z JAN 97
2. W-72,W-122(SURF-FL400),W-110(SURF-FL230)
3. TRACKEX/2-4 (NOTE 5)
4. ONE LEAR
5. ANY TWO HOUR PERIOD DURING ABOVE TIME PERIOD

F. 1. 152100-2400Z JAN 97
2. W-72B(SURF-FL400) AIR-2, AIR-6
3. AIC/8-1
4. TWO F-14 OR F-18
5. DTG DDHHMM MMM YY PRE-EX MSG SUBMITTED TO SQDRN-XX AS

ASSIGNED BY CNAL QRTLY SCHED DTG DDHHMM MMM YY.

G. 1. 161400-1700Z JAN 97
2. W-386D/7CD, 8CD (SURF-5,000 FEET) (NOTE 6)
3. GUNEX/8-1
4. SEPTAR MK 35
5. ALLOCATION REQUEST TO C2F BY SEPCOR

H. 1. 161900-2100Z JAN 97
2. 14CD, 15CD, 21AB, 22AB (SURF-24,000 FEET) (NOTE 7)
3. GUNEX CIWS/6-4
4. ONE LEAR WITH TRX
5. NONE

I. 1. 162200-171000Z JAN 97
2. 15D, 22BD, 28 (SURF-800 FEET)
3. VDS, NIXIE/8-1
4. NONE
5. AREAS DESIRED TO CLEAR 100 FATHOM CURVE

J. 1. 171500-1700Z JAN 97 (PRIMARY), 171900-2100Z JAN 97 (BACK-UP)
2. W-72, W-122 (SURF-FL400); W-110(SURF-FL230)
3. TRACKEX/2-1
4. ONE LEAR EACH PERIOD
5. WILL SUBMIT ALTRV REQUEST IAW REF B CHAP 5 FOR AIRSPACE EAST OF WARNING AREA W-72 IF W-122 NOT AVAIL. WILL CONTACT GIANT KILLER IF BACK-UP TRACKEX IS NOT REQUIRED.

K. 1. 171700-1900Z JAN 97
2. 15D, 22B(SURF-BOTTOM)
3. ANCHOR/2-1
4. NONE
5. MINIMUM 30 FATHOMS REQUIRED FOR INSPECTION CRITERIA.

L. 1. 172200-2400Z JAN 97
2. W-72 (SURF-FL400), W-110(SURF-FL230)
3. EW SVCS/8-1 (NOTE 8)
4. EA-6B
5. REQUEST MSG SUBMITTED SEPCOR TO FLTINFOWARCEN. WILL SUBMIT SMALL SCALE ECM NOTIFICATION UPON APPROVAL OF SVCS.

M. 1. 181200-1400Z JAN 92

2. W-122(SURF-FL300)
3. EWTX/8-1 (NOTE 8)
4. LEAR
5. WILL SUBMIT SMALL SCALE ECM NOTIFICATION UPON APPROVAL OF SVCS. WORKING WITH FLTINFOWARCEN

N. 1. 181200-190400Z JAN 97
2. CPOA 2, 3, 9, 10, 17, 18, 19, 20, 22 (LESS SUBTRANSIT LANES)
3. VDS,NIXIE(SURF-600 FT)/8-1
4. NONE
5. NONE

O. 1. 181600-1900Z JAN 97
2. CPOA 9, 10 (SURF-5,000 FEET)
3. GUNEX 76MM/3-3
4. TUG WITH WILLIAMSON TARGET SLED
5. WILL SUBMIT PRE-EX MSG TO UNIT ASSIGNED BY COMSUPPRON EIGHT.

P. 1. 181900-2100Z JAN 97
2. CPOA 11, 12 (SURF-24,000 FEET)
3. GUNEX 76MM/8-1
4. LEAR WITH IR TARGET
5. NONE

Q. 1. 182100-2200Z JAN 97
2. CPOA 17 (SURF-3,000 FEET)
3. CHAFF/8-1 (NOTE 8)
4. NONE
5. SRBOC FIRING. WILL SUBMIT SMALL SCALE ECM NOTIFICATION SEPCOR.

NOTES: 1. Provide several telephone numbers other than quarterdeck. Include an INMARSAT Number if deployed.

2. Clearance request messages and/or paragraphs for ISE, transits, OPPE are not required since it is the individual unit's responsibility to remain clear of all hot/exclusive areas.

3. LATR is a long range tracking system that can be used to track fleet units and provide a play back of an

event to them for viewing during or after the exercise. Specific information on LATR is contained in Chapter 7.

4. All MISSILEXs in FACSFAC VACAPES OPAREAS require face-to-face brief at FACSFAC VACAPES or a predetermined location agreed upon by all participants. Review chapter IV for LOI format. LOI only required for MISSILEXs in FACSFAC Jacksonville OPAREAS supported by Flight International aircraft.

5. Use correct/appropriate priority in accordance with appendix F. For SURFLANT units: include "Deployer within 90 days", "INSURV/UMI", "FEP", or "CSSQT" if appropriate.

6. GUNEX altitudes provided as follows:

TYPE	EXCLUSIVE	MAX ORDNANCE
PACFIRE, 5 IN, 76MM, SEPTAR	SURF-5,000 Feet	SURF-3,500 Feet
Target Sled 5 IN, 76MM against aircraft with TDU, TRX, IR**	SURF-20,000 Feet	SURF-18,500 Feet
CIWS PACFIRE and against aircraft with TDU/TRX	SURF-24,000 Feet	SURF-22,500 Feet

**IR target only provided for 76MM GUNEX

7. Tow aircraft can only stream the target in the assigned area within the time period of the event. Aircraft cannot depart assigned area for tracking purposes. Aircraft restricted to streaming out and hauling in the target within the assigned time period of the GUNEX. It takes approximately 15-20 minutes for each evolution.

8. Small scale ECM notification required in accordance with OPNAVINST 3430.9(Series). Approval message required from Mid-Atlantic Area Frequency Coordination Office prior to commencement of event.

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APPENDIX F

SCHEDULING PRIORITIES

TAB A TO APPENDIX 24 TO ANNEX C TO CINCLANTFLT OPORDER 2000-FY
SCHEDULING PRIORITIES

1. General. To provide an integrated employment list for the scheduling of Atlantic Fleet Forces.

2. Situation. The demand for the services of Atlantic Fleet Forces often exceeds the services available. The following priority list is provided as a guide for preparation of Atlantic Fleet employment schedules. This list is not intended to be all-inclusive and should be used for planning purposes only. Exceptions can be made and conflicts which cannot otherwise be resolved will be settled by CINCLANTFLT.

3. Execution.

a. The following list provides an integrated employment for the scheduling of Atlantic Fleet Forces:

(1) DOD deployments in support of national policy.

(a) Forward deployed forces in support of National and Allied Defense.

(b) Peacetime naval presence.

(c) DOD missions associated with peacetime national policy.

(2) Basic Training (requirements to achieve C-2 status).

(a) Sea trials, underway material inspections and associated support.

(b) Interim refresher training, refresher training and associated support.

(c) Post overhaul/commissioning combat system training (CSSQT, CSAT, NGFS).

(d) Type training to achieve C-2 training status.

(e) Pilot initial DLQ certification.

(f) CV/CVW advanced phase training.

(g) Submarine PCO tactical operations certification.

(h) AIC/ASAC initial qualifications.

(i) USAF Operational Readiness Inspections (ORI).

(3) Pre-deployment training.

(a) FLEETEX (Basic/Advanced) and MARG workups.

(b) Pre-deployment workups (Includes MARCORPS SOCEX, Unit Deployment POM, JSOC training, and CNSL MTT's).

(c) Pre-deployment grooms/combat systems training (CCSQT, CSAT, NGFS QUALS).

(4) Major exercises (RESOLUTE RESPONSE, BALTOPS, AGILE PROVIDER, PFP, PURPLE STAR).

(5) RDT & E support for CNO and DOD PRI ONE projects.

(6) Miscellaneous Exercises (MARCOT, SHAREM, OTL, VANDALEX, LANTSUBASWEX, BILATS, etc.).

(7) RDT & E Support for CNO and PRI TWO projects.

(8) Proficiency training (training necessary to maintain a C-2 status).

(9) Support services.

(a) PCO OPS/SOSMRC school support.

(b) Midshipmen training program.

(c) RDT&E Support for CNO and DOD PRI THREE projects.

(d) SWOSCOLCOM support.

(e) ANGLICO/NAVPHIBSCOL NGLO training.

(f) Port visits.

(10) Indoctrination cruises/community relations.

(a) Community relations port visits (normally scheduled in conjunction with high priorities whenever possible).

(b) Youth programs.

(c) Special interest groups.

(d) Face the Fleet events.

b. Senior Officer Ship Material Readiness Course (SOSMRC) and Prospective Commanding Officer (PCO) training are high priority scheduling items for which services should be provided on a dedicated basis or, when possible, integrated with other fleet operations.

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APPENDIX G

STANDARD LETTER OF INSTRUCTION (LOI) FOR MISSILEXES CONDUCTED IN FACSFAC VACAPES OPAREA (W-72)

The following standard requirements for an LOI shall be in message or letter format. All items listed in paragraph III shall be filled in (enter N/A where appropriate).

I. MESSAGE HEADER FORMAT:

FM: (UNIT DESIRING MISSILEX)
TO: FACSFAC VACAPES OCEANA VA//23//
(ALL PARTICIPANTS OF THE EXERCISE)
INFO: AS APPROPRIATE

BT
(CLASSIFICATION)//N03120//

SUBJ: MISSILEX LETTER OF INSTRUCTION (LOI) (U)

A. CINCLANTFLTINST 3120.26(Series)
B. FACSFACVACAPESINST 3120.1(Series)
C. (OTHERS AS APPROPRIATE)

Copy to: (ALL PARTICIPANTS OF THE EXERCISE)

II. LETTER HEADER FORMAT:

(CLASSIFICATION)

From: Commanding Officer, (UNIT NAME)
To: Commanding Officer, Fleet Area Control and Surveillance Facility, Virginia Capes

Subj: (UNIT NAME) MISSILE FIRING EXERCISE LETTER OF INSTRUCTION

Ref: (a) CINCLANTFLTINST 3120.26(Series)
(b) FACSFACVACAPESINST 3120.1(Series)
(c) (OTHERS AS APPROPRIATE)

Copy to: (All participants of the exercise)

III. MESSAGE/LETTER BODY FORMAT:

1. IAW refs A and B, following LOI submitted:

A. OCE (be specific)

B. PURPOSE OF THE EXERCISE.

C. OBJECTIVES OF EXERCISE. (To provide aircrew; To successfully exercise; To provide maintenance personnel; etc.)

D. REQUIREMENTS: (as appropriate)

(1) Missiles(s). (number and type, provide serial numbers if telemetry requires them)

(2) Target(s).

(3) Areas designated in FACSFAC VACAPES OPSKED.

(4) Area surveillance provided by (squadron).

(5) Date/time (ZULU) of primary (Primary/Secondary).

(6) Weather. (ceiling and visibility required, sea state as appropriate).

(7) Safety Observer. (as appropriate)

(8) Event number: (from FACSFAC VACAPES OPSKED or TBA if LOI promulgated before OPSKED)

(9) Missile Profiles (Altitude, Speed, etc.), Target Profiles (Altitude, Speed, etc.)

(10) Missile Hazard Pattern(s): (Back range, down range, total cross range. (Consult FACSFACVACAPESINST C8800.1(Series))

(11) Target Hazard Pattern: (as appropriate)

(12) Aircrew Assignments: (air-to-air, air-to-ground)

(13) Frequencies: (contact FACSFAC VACAPES at 433-1232 for frequencies)

(14) Participant call signs (daily changing call signs where appropriate)

E. Schedule of Events (order of shooters, profiles etc.)

F. Exercise Procedures (as appropriate)

G. Missile/target set-up/aspect (as required by FXP, SELEX, ORI, etc.)

H. Missile Firing Procedures. (as appropriate)

I. Abort Criteria.

J. Hung Missile (air-to-air, air-to-ground)/Misfire (surface-to-air, surface-to-surface) Procedures. (as appropriate)

K. Shooter Safety Precautions. (as appropriate)

L. Missilex Terminology. (see Chapter IV)

M. RCO: FACSFAC VACAPES (Primary)
_____ (Back-up)

N. Miscellaneous. (as appropriate)

O. FACSFAC VACAPES Safety Requirements: (include following as appropriate:

(1) Two-way communications - all players

(2) FACSFAC VACAPES and the air surveillance unit shall call GREEN RANGE when the missile/target hazard pattern is free of all contacts as reported by the air surveillance unit. The words GREEN RANGE shall only be used by the Range Control Officer. The OCE/Safety Observer may request the status of the range with the interrogative transmission, “RANGE STATUS” It shall

be answered by FACSFAC VACAPES personnel with either GREEN RANGE, RED RANGE or CONTINUE. All participants are required to call RED RANGE if they observe an unsafe situation.

(3) LINK-11 capable surveillance units shall establish a link with FACSFAC VACAPES. In the event LINK-11 is not available, a surface SITREP shall be provided at least every 15 minutes, and just prior to commencing the exercise.

(4) Target launch procedures shall be in accordance with cognizant SOP. Targets shall not be launched without permission of FACSFAC VACAPES.

(5) FACSFAC VACAPES and the air surveillance unit shall determine missile/target hazard patterns to be protected.

(6) FACSFAC VACAPES and air surveillance unit shall determine safe launch point off Oceana TACAN and determine safe launch headings from the launch point. (Norfolk TACAN CH. 116 to be used as back-up NAVAID).

(7) The words CLEARED TO ARM/CLEARED TO FIRE shall only be used by the OCE/Safety Observer.

(8) For Air-to-Air missile exercises conducted in W-72A, the entire missile hazard pattern shall lie two nautical miles inside the assigned exercise area, but will in no case lie west of 75°20'00"W.

P. Action addressees acknowledge receipt of this LOI.

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APPENDIX H

STANDARD BRIEFING GUIDE FOR MISSILE EXERCISES

STANDARD BRIEF GUIDE FOR _____(UNIT)_____ MISSILEX TO BE CONDUCTED IN _____(AREA)_____ ON __(DATE OF EXERCISE)__.

BRIEF HELD _____(DATE/TIME)____ AT _____(PLACE)_____.

REQUIRED ATTENDEES:

_____ RANGE CONTROL OFFICER

_____ BACK/UP RANGE CONTROL OFFICER

_____ RANGE SUPERVISOR

_____ VC-6 (BQM/SEPTAR)

_____ TARGET LAUNCHER (AQM/TALD/TDU)

_____ AIR SURVEILLANCE

_____ OCE

_____ FIRING UNITS

_____ SAFETY OBSERVER

DISCUSS THE FOLLOWING:

A. OCE ASSIGNMENT (BY OCE) _____

B. EXERCISE PURPOSE (BY OCE) _____

C. EXERCISE OBJECTIVES (BY OCE) _____

D. REQUIREMENTS (BY OCE) _____

(1) MISSILE(S) _____

(2) TARGETS(S) _____

(3) AREA _____

(4) AREA SURVEILLANCE UNIT _____

(5) PRIMARY DATE/TIME _____

SECONDARY DATE/TIME _____

(6) WEATHER _____(CEILING)_____ /_____(VISIBILITY)_____

(7) SAFETY OBSERVER _____

(8) EVENT NUMBER (IF ASSIGNED) _____

(9) PROFILES _____

(10) MISSILE HAZARD PATTERNS:

(A) DOWN RANGE _____

(B) BACK RANGE _____

(C) TOTAL CROSS RANGE _____

(11) TARGET HAZARD PATTERN:

(A) DOWN RANGE _____

(B) BACK RANGE _____

(C) TOTAL CROSS RANGE _____

(12) AIRCREW ASSIGNMENTS:

	UNIT	AIRCREW	MISSILE	TGT	PROFILE
(A)					
(B)					
(C)					
(D)					

(13) FREQUENCIES:

(A) PRIMARY _____

(B) SECONDARY _____

(C) HF _____

(14) UNIT CALL SIGNS: _____

_____

_____

_____

E. SCHEDULE OF EVENTS (BY OCE) _____

_____

F. EXERCISE PROCEDURES (BY OCE) _____

_____

G. MISSILE/TARGET SET-UP/ASPECT (BY OCE) _____

H. MISSILE FIRING PROCEDURES (BY OCE) _____

I. ABORT CRITERIA (BY OCE) _____

J. HUNG MISSILE (AIR-TO-AIR)/MISFIRE (SURFACE-TO-SURFACE) PROCEDURES. (BY OCE) _____

_____

K. SHOOTER SAFETY PRECAUTIONS. (BY OCE) _____

_____

L. MISSILEX TERMINOLOGY. (BY OCE) _____

_____

M. MISCELLANEOUS (AS APPROPRIATE). (BY OCE) _____

N. FACSFAC VACAPES SAFETY REQUIREMENTS. (BY RCO)

(1) TWO-WAY COMMS

(2) GREEN RANGE/RED RANGE/INT RANGE STATUS

(3) SURFACE/AIR SURVEILLANCE

(4) TARGET LAUNCH PROCEDURES (AS APPROPRIATE)

(5) MISSILE/TARGET HAZARD PATTERNS

(6) SAFE LAUNCH PROCEDURES (AS APPROPRIATE)

(7) W-72A LAUNCH RESTRICTIONS (AIR-TO-AIR)

O. SUMMARIZE CHANGES TO LOI (BY RCO)

(1) REVIEW ROUGH MESSAGE LOI

(2) LOI PROMULGATED WITHIN 24 HOURS.

(3) LETTER LOI (SIGNED/DATED)

APPENDIX I

GLOSSARY

ACM - Air Combat Maneuvering. Simulated air combat between two or more aircraft involving dynamic, high performance maneuvering flight. Airspace will not be scheduled below 5,000 feet MSL in accordance with COMNAVAIRLANTINST 3710.47(Series) and U.S. Air Force Regulation 51-2 ACM: Rules of Engagement.

ACOA - Atlantic City Operating Area.

ADIZ - Air Defense Identification Zone. The area of airspace over land or water, extending upward from the surface, within which the ready identification, location, and control of aircraft are required in the interest of national security.

AEW - Airborne Early Warning. Air surveillance provided by aircraft with search and identification radar.

AGL - Altitude expressed in feet above ground level.

AIC - Air Intercept Control. Positive control of air assets for detection, identification, and interdiction of hostile aircraft. AIC involves continuous vectors by controllers for target engagement.

AIM - Airman's Information Manual.

ALTRV - Altitude Reservation. Airspace utilization under prescribed conditions normally employed for mass movement of aircraft and other special user requirements which cannot otherwise be accomplished. ALTRVs are approved by the appropriate FAA facility.

ARTCC - Air Route Traffic Control Center.

ARU - Airborne Radar Unit.

ASAC - Anti-Submarine Air Control - The direct control of Anti-Submarine assets (S-3, P-3, and Helicopters) for detection, tracking and destruction of enemy submarines.

ATC - Air Traffic Control.

ATCAA - Air Traffic Control Assigned Airspace. Airspace of defined horizontal and vertical limits, assigned by Air Traffic Control, for the purpose of separating certain military training activities from IFR traffic. ATCAAs are used for the development of proficiency in all phases of the intercept mission, both ground and air components. Procedures governing operations within ATCAAs shall be specified in Letters of Agreement between local military authorities and the ATC facilities concerned.

BINGO - The fuel state at which an aircraft is required to proceed from its present position to the nearest suitable divert field. The aircraft is considered to be in an emergency fuel situation. An aircraft ordered to BINGO shall be instructed to SQUAWK Mode III Code 7700 and shall be instructed to switch to GIANT KILLER as soon as possible. The pilot shall provide GIANT KILLER with profile altitude, descent point and other pertinent information (type emergency, operational limitations, assistance required at destination).

CONTROLLED AIRSPACE - Airspace of defined dimensions designated as Continental Control Area, Control Area, Terminal Control Area or Transition Area, within which some or all aircraft may be subject to air traffic control.

CONTROLLING AGENCY - The FAA facility which may authorize transit through, or flight within, a Restricted/Warning Area in accordance with a joint use letter issued under FAR, part 73. Designation of the FAA as the controlling agency in Restricted and Warning airspace applies only in the period when the area is released to the FAA. Such designation does not negate, compromise or modify military control or use of the area.

CONTROLLING AUTHORITY - The organization or military command having jurisdiction over a given operating area and/or designated special use airspace requiring annual utilization reports in accordance with OPNAVINST 3770.2(Series).

CPA - Closest Point of Approach

CPOA - Cherry Point Operating Area

CQ - Carrier Qualifications

CTA - Control Area. Control Areas consist of the areas designated in FAR, part 71, subparagraphs B, C, E and J, but do not include the Continental Control Area. Unless otherwise directed, Control Areas include the airspace between a segment of a main VOR airway and its associated alternate segments with the vertical segment of the areas corresponding the vertical extent of the related segment of that airway.

DACT - Dissimilar Air Combat Training. ACM with more than one type of aircraft participating.

DMAHTC - Defense Mapping Agency Hydrographic and Topographic Center.

DME - Distance Measuring Equipment

DUE REGARD - A term indicating flight where the military aircraft commander accepts responsibility to separate his aircraft from all other air traffic.

EMERGENCY FUEL - Emergency fuel is an emergency situation where the pilot shall be given priority vectors to land as soon as possible.

EXCLUSIVE USE - An operating area or a portion thereof that is scheduled for the exclusive use by the assigned unit(s). No other units will be scheduled at the same time in the same area.

FAA - Federal Aviation Administration

FACTS - FACSFAC Air Control Tracking System. The FACTS system is an automated Air Traffic Control System consisting of processing units, displays, computer programs, remote radar sites and land lines that allow all warning area airspace from Cherry Point to Narragansett Bay to be controlled from a single site.

FIR - Flight Information Regions

FL - A level of constant atmospheric pressure related to a reference datum of 29.92 inches of mercury.

FLIP - Flight Information Publication

GCI - Ground Control Intercept. Similar to AIC, aircraft controlled exclusively from a ground site.

ICAO - International Civil Aviation Organization

IFR - Instrument Flight Rules. Rules governing procedures for conducting instrument flight. Also a term used by pilots and controllers to indicate type of flight plan (refer to AIM). (See also IMC, VFR, VMC).

IMC - Instrument Meteorological Conditions. Weather conditions expressed in terms of visibility, distance from cloud and ceiling less that the minima specified for visual meteorological conditions. (See also IFR, VFR, VMC).

IR - Instrument Flight Rules Route

ISE - Independent Steaming Exercise. Surface unit conducting independent internal exercises requiring no other restricting area clearances. ISEs are usually associated with transits through OPAREAS.

KTAS - Knots True Air Speed

LATR - Large Area Tracking Range

LOA - Letter of Agreement

LOI - Letter of Instruction

LPOD - Last Plane on Deck

LZT - Local Zone Time

MAG - Magnetic

MARSA - Military Assumes Responsibility for the Separation of Aircraft.

MCM - Mine Countermeasures. Operations by surface vessels or helicopters for locating, retrieving, and disabling mines. Usually conducted close to shore in shallow water.

MHA - Missile Hazard Area

MINIMUM FUEL - Aircraft fuel state dictates the pilot can accept no undue delay upon reaching his destination.

MLS - Military Liaison Specialist (works for FAA)

MOA - Military Operations Area.

MOS - Military Operations Specialist (works for FAA)

MRU - Military Radar Unit. Any fixed or mobile ground based unit under the operational jurisdiction of the military services excluding commissioned ATC facilities. Military Radar Units shall not provide ATC services.

MSL - Altitude expressed in feet above Mean Sea Level.

MTR - Military Training Routes

NBOA - Narragansett Bay Operating Area

NHK - Cherry Point Three Letter Identifier

NORAD - North American Aerospace Defense Command. NORAD forces are responsible for air defense, missile warning, limited damage to strategic retaliatory forces and command control and communications nodes, controlling access to North American airspace and defending against an atmospheric attack.

NOTAM - Notice To Airmen. Notice to aircraft issued as an advisory of potentially hazardous situations and changes to published procedures and/or facilities.

NOTMAR - Notice To Mariners. Notice to ships and submarines issued as an advisory of potentially hazardous operations. NOTMAR areas shall be promulgated 72 hours prior to hazardous operations.

OAC - Oceanic Airspace Coordinator

OCE - Officer Conducting Exercise.

OCEANIC AIRSPACE - Airspace which overlies the high seas and is within FIR/CTA boundaries.

OCEANIC CONTROL AIRSPACE - Airspace within oceanic airspace which is designated as controlled airspace (See Control Area).

OFFSHORE AIRSPACE - Airspace between the U.S. statutory limit and the Oceanic FIR/CTA boundary.

OTC - Officer in Tactical Command. Senior officer present eligible to assume command or the officer he has delegated tactical command.

PCA - Positive Control Airspace

PIM - Position of Intended Movement. Position of ship or submarine with regard to expected course and speed over a specific period of time.

PXOA - Patuxent River Operating Area

RCO - Range Control Officer

RPV - Remotely Piloted Vehicle

SAR - Search and Rescue

SCHEDULING AUTHORITY - The organization or military command having authority for scheduling a given operating area and/or special use airspace.

SEAC - Submarine Exercise Area Coordinator. The SEAC is charged with the responsibility of monitoring submerged interference with local fleet operating areas. The SEAC is also responsible for ensuring that the cognizant scheduling authorities are advised when submarine transit lanes are in use.

SOA - Special Operating Area. SOAs are designated portions of special use airspace which may be assigned for specific air operations.

SPECIAL USE AIRSPACE - Airspace of defined dimensions wherein activities must be confined because of their nature, and/or wherein limitations may be imposed upon aircraft operations that are not part of these activities.

SUBMARINE TRANSIT LANE - Area designated for submarines conducting training or operating, normally submerged below 98 feet depth.

SUBOA - Submarine Operating Area. Area designated for submarines conducting training or operations, consisting of area 98 feet below the surface to the bottom.

SUBOPAUTH - Submarine Operating Authority

SURFACE AREA - For the purpose of this manual, the surface of the ocean down to a depth of 98 feet.

SWAP - Severe Weather Avoidance Plan. A plan to reroute air traffic to avoid severe weather along the East Coast. Releasing Warning Area airspace to the FAA provides the least disruption to the ATC system when large portions of airspace are unusable due to weather.

TACTS - Tactical Air Combat Training System Range. An instrumented polygon shaped airspace described by the following coordinates (in a clockwise manner):

36°15'00"N, 075°30'00"W;
36°15'00"N, 074°30'00"W;
35°30'00"N, 074°30'00"W;
35°30'00"N, 074°56'00"W;
35°54'00"N, 075°30'00"W.

Effective altitudes are from 5,000 feet to unlimited.

TAS - True Air Speed

TCA - Track Crossing Angle

TDS - Tactical Data System

TDU - Towed Dummy Unit

TRACON - Terminal Radar Approach Control. A TRACON is an FAA facility which provides radar services to specified military and civil airports. Additional services are available within airspace assigned to a TRACON (i.e., low altitude enroute, VFR advisories).

Vc - Rate closure

VCOA - Virginia Capes Operating Area

VDS - Variable Depth Sonar. Sonar transducer which can be towed behind or beneath a vessel at varying depths.

VFR - Visual Flight Rules. Rules that govern the procedures for conducting flight under visual conditions. The term VFR is also used to indicated weather conditions that are equal to or greater than VFR minima requirements (refer to FAR part 91 and the Airman's Information Manual). (See also IFR, IMC, VMC).

VMC - Visual Meteorological Conditions. Weather conditions expressed in terms of visibility, distance from clouds and ceiling equal to or better than specified minima. (See also IFR, IMC, VFR).

VR - Visual Flight Rules Route

WARNING AREA - Airspace of defined dimensions outside of United States territorial waters in which exists a hazard to aircraft. Because Warning Areas are located over International Waters, flight within these areas is not legally restricted. However, pilots are advised to be aware of the activities conducted therein. Warning Area coordinates are set forth in DOD Information Publications, Planning Section II, FLIP AP/1A (Special Use Airspace).

APPENDIX J

EFFECTIVE ALTITUDES OF WARNING AREAS

AREA	ALTITUDES
W-50	Surface to FL750.
W-72; East of 075°30'00"W	Surface to Unlimited.
W-72; West of 075°30'00"W	Surface to, but not including 2K ft and above FL600 to unlimited.
W-72; VCOA 28	5K ft to Unlimited (lower upon request).
W-105 A	Surface to FL500.
W-105 B	Surface to, but not including FL180.
W-105 C	Surface to FL500.
W-105 D	Surface to, but not including 15K ft.
W-105 E	15K ft to FL500.
W-106 A	Surface to 3K ft.
W-106 B	Surface to 8K ft.
W-106 C	Surface to 10K ft.
W-106 D	Surface to, but not including 6K ft.
W-107 A,D,E,F	Surface to unlimited.
W-107 B	Surface to, but not including 2K ft.
W-107 C	Surface to, but not including FL180.
W-108 A,B	Surface to unlimited.
W-108 C	Surface to FL230.
W-110	Surface to FL230.

EFFECTIVE ALTITUDES OF WARNING AREAS (CONT'D)

AREA	ALTITUDES
W-122 A,B,C,F,G,J	Surface to unlimited.
W-122 D	Surface to, but not including FL180.
W-122 E	FL180 to unlimited.
W-122 H	Surface to unlimited, except airspace above FL240 in the following area: 34°23'15"N, 077°30'00"W; then 3 NM from, and parallel to the shoreline to 34°28'40"N, 077°19'00"W; 33°53'30"N, 077°26'11"W; 33°51'00"N, 077°30'00"W; to origin
W-122 I	Surface to unlimited, except air space above FL240 in the following area: 33°53'30"N, 077°26'11"W; 33°34'00"N, 077°30'25"W; 33°51'00"N, 077°30'00"W; to origin
W-386 A East of 075°30'00"W	Surface to unlimited.
W-386 A West of 075°30'00"W	Surface to, but not including 2K ft, and above FL600 to unlimited.
W-386 B,E	Surface to unlimited.
W-386 C	Surface to unlimited.
W-386 D	Surface to FL200 for GUNEXs and FL210 to unlimited for ACM.
W-387 A	Surface to, but not including FL240.
W-387 B	FL240 to unlimited.
R-6606	Surface to FL510.

APPENDIX K

FACILITY PHONE NUMBERS

DSN: 433-XXXX Commercial: (757) 433-XXXX

Commanding Officer	433-1200
Executive Officer	433-1201
Administrative Officer	433-1206
Quarterdeck	433-2851
Admin Fax	433-1266

OPERATIONS DEPARTMENT

Operations Officer	433-1217/1215

Air Traffic Control Division

Air Traffic Control Officer	433-1235
Air Traffic Control LCPO	433-1214
Air Traffic Control Training Chief	433-1295
Air Traffic Control Radar Branch Manager	433-1230
Air Traffic Control Facility Watch Supervisor	433-1231

Operations Intelligence Division

Operations Intelligence Officer/Missilex Coordinator	433-1236
OI Division LCPO/LPO	433-1203/1204
Area Coordinator	433-1320/1321/1322

Schedules Division

Schedules Officer	433-1219
Schedules Writers	433-1216/1218/ 1220/1299
Target Schedule Coordinator	433-1221/1222
Oceanic Airspace Coordinator	433-1233
Military Training Routes Scheduling/Briefing	433-1323
Large Area Tracking Range	433-1223

ELECTRONICS MAINTENANCE DEPARTMENT

Electronics Maintenance Officer	433-1249
Electronics Maintenance LCPO	433-1293
Electronics Supervisor	433-1250
Electronics Technician	433-1251

AIRSPACE

Air Space Liaison Officer	433-1248
Air Space Liason Chief	433-1225

APPENDIX L

MEMORANDUM OF AGREEMENT (MOA) BETWEEN COMMANDING OFFICER, FACSFAC VACAPES AND BACK-UP RANGE CONTROL OFFICER; REQUIREMENTS AND DESIGNATION LETTER

Subj: MEMORANDUM OF AGREEMENT BETWEEN COMMANDING OFFICER, FACSFAC VACAPES AND BACK-UP RANGE CONTROL OFFICER FOR ASSUMPTION OF RANGE-CONTROL DUTIES AND RESPONSIBILITIES

Ref: (a) CINCLANTFLTINST 3120.26 (Series)
(b) COMNAVAIRLANTINST 5450.61 (Series)
(c) FACSFACVACAPESINST 3120.1 (Series)
(d) FACSFACVACAPESINST C8800.1 (Series)

1. Purpose: To delineate requirements necessary to assume Range Control Officer (RCO) duties and responsibilities.

2. Discussion: In order to provide the requisite safety measures for Missile Exercises (MISSILE-EX) and not waste naval assets when FACSFAC VACAPES RCO experiences communication or surveillance problems, the assignment of a Back-up RCO is appropriate. Duties and responsibilities for RCO's are identified in references (a), (b) and (c). Additional requirements are provided in this memorandum.

3. Requirements: Assignment and designation as Back-up RCO shall be approved only after all requirements of this memorandum have been met. The Back-up RCO will certify compliance with the following items:

(a) Is qualified and designated as CICO (for E-2's) or TAO (for surface ships).

(b) Knows and understands RCO responsibilities stated in references (a) through (c).

(c) Has personally attended the PRE-MISSILEX briefings.

(d) Knows and understands all range safety precautions cited in reference (c), and OCE requirements identified in the missilex LOI.

(e) Knows and understands the missile and target profiles. Has developed Missile and Target Hazard Area envelopes in accordance with reference (d).

(f) Knows and understands weather requirements/minimums necessary to conduct the MILLSILEX

4. Action: Commanding Officer, FACSFAC VACAPES and back-up Range Control Officer agree to transfer/assume RCO duties and responsibilities when necessary to safely complete the MISSILEX. The back-up RCO thoroughly understands and will adhere to all safety precautions promulgated by references (a) through (d) and LOI directives published by OCE. The Back-up RCO, by signing this memorandum, certifies compliance with all requirements listed. MISSILEX dates are:

Primary: _____

Back-up: _____

Alternate Back-up: _____

_____	_____
(Signature)	(Signature) CO, FACSFAC VACAPES

_____
(Print Name, Rank, SSN)
Back-up Range Control Officer

Special Conditions:

_____

_____

_____

_____

Back-up RCO Initials

CO , FACSFAC VACAPES Initials

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APPENDIX M

TARGET RANGE PROCEDURES

1. INTRODUCTION. All procedures dealing with Range Targets can be found in NASOCEANAINST 3710.19 (series).

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APPENDIX N

EFFECTIVE ALTITUDES OF RESTRICTED AREAS

R-5314	A....Surface to FL205
	B....500 feet above surface to FL205
	C....500 feet above surface to FL205
	D....Surface to FL205
	E....Surface to FL205
	F....500 feet above surface to FL205
	G....200 feet above the surface to 15,000 feet MSL
	H....500 feet above the surface to 10,000 feet MSL
	J....1,000 feet above the surface to 6,000 feet MSL
R-5313	A....Surface to FL180
	B....100 feet above the surface to 13,000 feet
	C....100 feet above the surface to 13,000 feet
	D....500 feet above the surface to 13,000 feet
R-5302	A....Surface to 14,000 ft
	B... 100 feet above the surface to 14,000 feet
	C....100 feet above the surface to 3,000 feet

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